

SDG17
PARTNERSHIP
FOR
GOALS

EYE Check-up Camp

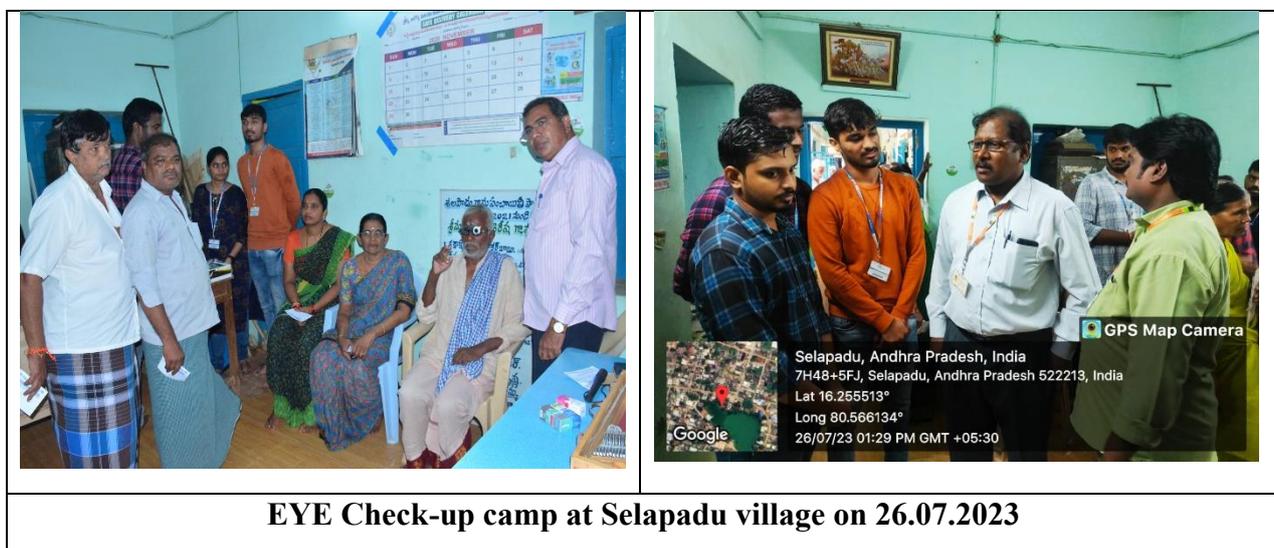
Date:26.07.2023

Venue: Selapadu

On July 26, 2023, the UEAC team celebrated the birthday of our Chairman, Dr. L. Rathaiah sir, by holding an eye check-up camp in our adopted hamlet, Selapadu. A group of eye specialists from Dr. Agarwal's Eye Hospital in Guntur paid the locals a visit to perform eye - examinations.

The villagers benefited from the camp since it gave them a chance to learn more about many facets of eye care. To properly assess the people, the doctors brought advanced eye examination equipment. They also discussed raising awareness and expanding access to eye healthcare services with the villagers. The purpose of this program was to raise awareness among the villages about eye conditions, their early identification, and how to identify refractive errors and other eye conditions. The folks were inspired by Mr. M. Venugopala Rao and Ms. Mannem Sireesh, the local sarpanch. Both Dr. M.S.S. Rukmini, Dean of Student Affairs, and Dr. Vijayababu Palukuri, UEAC Program Officer, visited the eye camp and gave the student volunteers encouragement. The event was organised by Mr. D. Suresh Babu, UEAC Coordinator. A total of 55 volunteers from various departments had participated in the event.

The Villagers also asked the queries they had in their mind which were solved by eye specialists. Attendees with eye problems requiring continued medical attention were given referral slips. A total of 110 spectacles were given to villagers. The camp proved to be incredibly helpful and for about 250 villagers.



S.No	Organisation with which MoU is signed	Name of the institution/ industry/ corporate house	Address	Year of signing MoU	Duration	List the actual activities	Number of students/teachers participated
1	Industry	Wisig Network Pvt. Ltd.	1st Floor, Plot No. 6, Sector 3, HUDA Techno Enclave, Madhapur, Hyderabad, Telangana, 500081, India. Phone: +91 94913 98508 E-Mail:contactus@wisig.com	2023-2024	3 years	Student Internship	25
2	Academic Institution	Central College Nepal	M8XX+3J9, Sinamangal Rd, Kathmandu 44600, Nepal Phone: +977-1-4110646, 4116697 Email: info@centralcollege.edu.np	2023-2024	5 years	Mutual support for contemporary curriculum design. Joint organization of professional development programs for faculty and staff. Access to library resources,including books,journals, and digital materials.	15
3	Industry	CAB International	Nosworthy Way, Wallingford, Oxfordshire, OX10 8DE, United Kingdom Phone: +44 (0)1491 832111 Email: info@uk-cgiar.org	2023-2024	5 years	<u>Pest Preparedness:</u> Coordinating and strengthening systems for detection and response to pest outbreaks. <u>Pesticide risk reduction:</u> increasing awareness of , access to and use of affordable integrated pest management solutions. <u>Farmer advisory services:</u> Enhancing knowledge and uptake of integrated pest management practices through responsive digital advisory tools.	14
4	Industry	Vijaya Krishna Agro Food Processing Pvt.Ltd.	Remalle Village, Bapulapadu Mandal, Krishna District, Vijayawada – 521110, Andhra Pradesh, India Phone: +91-9860052081/+91-8121118344 Email: sales@vkpulps.com/rashidvkgro@gmail.com	2023-2024	5 years	Curriculum design. Training Visits Guest Lectures	42
5	Academic Institution	Australian Institute of Advanced Technology	Level 9,50 Grenfell Street, Adelaide, SA 5000, Australia Phone: +61 8 6118 7888 Email: info@aiat.edu.au	2023-2024	3 years	-	-
6	Medical Organization	Dr. Ramesh Cardiac and Mult Speciality Hospital Pvt. Ltd.	Ward 33D, Ring Road, ITI Bus Stop, Vijayawada, Andhra Pradesh, 520010, India Phone: +91-866-2484800 Email: info@rameshhospitals.in	2023-2024	3 years	Curriculum Design Training Visits Guest Lectures	21
7	Research Institution	IPE (Institute of Public Enterprise)	Survey No. 1266, Shamirpet (V&M), Medchal, , Hyderabad - 500101, Telangana, India Phone: +91-40-27098145/+91-40-27095183 Email: info@ipeindia.org	2023-2024	3 years	Student Internships	35

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8	Medical Organization	Aditya Multi Speciality Hospital	D. No. 13-3-52, Gunturuvarithota, 3rd Line, Kothapet, Guntur, Andhra Pradesh, 522201, India. Phone: +91 94935 71666 Email: adityahospital@gmail.com	2023-2024	10 years	Training to the students of Pharmacy	42
9	Skill Development Organization	CSC Academy, Office at Inspire Education	Office at Inspire Education, #54-10-56, Besides Taruni Square Isukathota, Vishakhapatnam, Andhra Pradesh - 530022, India Phone: +919938620823 9938620823 Email: help.cscacademy@gmail.com.	2023-2024	5 years	Upskilling program to the students of VFSTR	41
10	Academic Institution	IEST, Shibpur (CFTI)	P.O. Botanical Garden, Howrah, West Bengal 711103, India Phone: +91-33-26684561 Email: pro@iests.ac.in	2023-2024	5 years	Internship Opportunity to the students. Training opportunity to the faculty	28
11	Government Organization	C - DOT	C-DOT Campus, Mehrauli, New Delhi -110030, India Phone: +91-11-26598700 Email: cdotweb@cdot.in	2023-2024	2 years	DVD-S2 Product proposal	29
12	Academic Institution	Mahatma Gandhi Mission University	N-6, CIDCO, Aurangabad, Maharashtra - 431003, India Phone: +91-240-2481436 Email: mgmuniversity@mgmu.ac.in	2022-2023	5 years	Orientation to students of VFSTR to enhance the entrepreneurial and employment skills	7
13	Industry	Shimoga Health Care	Nadikudi, Andhra Pradesh - 522414, India Phone: 7947111059 Email: shellp9@gmail.com	2022-2023	5 years	Internship opportunities to VFSTR students.	13
14	Academic Institution	Acharya Nagarjuna University	Nagarjuna Nagar, Guntur, Andhra Pradesh - 522510, India Phone: +91-863-2346114 Email: helpcenter@anu.ac.in	2022-2023	3 years	Access the laboratory facilities for research work and collaborative project works as per respective institute norms. Guest lectures and Value added/Credit based courses to the students. Participate in National, International Conferences / Seminars / Symposium / Workshops/ societal relevant programs etc. Feedback in designing and revising the curriculum at both the institutions.	27
15	Medical Organization	Lalitha Super Speciality Hospital (LSSH)	Kothapet Main Road, Guntur, Andhra Pradesh 522001, India Phone: +91-863-2222866 Email: lalithahospitals@gmail.com	2022-2023	3 years	Internship opportunities to the students of VFSTR. Hands - on training to the faculty members of VFSTR. Feedback in designing and revising the curriculum.	27

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16	Research Organization	ICARF	P.O. Box 30677-00100, Nairobi, Kenya India Office: CIFOR-ICRAF India office 1st Floor, C Block National Agricultural Science Complex (NASC) Dev Prakash Shastri Marg Pusa Campus New Delhi, India 110012 Phone: +91 11 25847885/6 Email: s.dhyani@cifor-icraf.org	2022-2023	3 years	Establishment of High-Tech Nursery	15
17	Industry	Andhra Pradesh Innovation Society (APIS)	Sunrise Incubation Hub, Hill No. 3, IT SEZ, Madhurawada, Visakhapatnam, Andhra Pradesh 530048, India Phone: +91-866-2971555 Email: info@apinnovationsociety.com	2022-2023	3 years	Student development programs	57
18	Academic Institution	SASI Institute of Technology And Engineering	Tadepalligudem, West Godavari District, Andhra Pradesh - 534101, India Phone: +91-8818-870555 Email: info@sasi.ac.in	2022-2023	3 years	Faculty development programs in Research and Academics	11
19	Industry	Virchow Biotech Pvt. Ltd.	Plot No. 4, S.V. Cooperative Industrial Estate, IDA Jeedimetla, Hyderabad, Telangana - 500055, India Phone: +91-40-44558585 Email: info@virchowbiotech.com	2022-2023	5 years	Use of Laboratory, field, library including online access and other facilities for the research scholars in their area of interest Establishment of montry - sponsored M-Tech Program Internships/short-term visit to students	43
20	Industry	ZOHO Corporation Pvt. Ltd.	Estancia IT Park, Vallancheri, Chengalpattu, Tamil Nadu - 603202, India Phone: +91-44-71817000 Email: info@zohocorp.com	2022-2023	2 years	Training to students of VFSTR who have registered for the Young Creator Program	62
21	Industry	Technmologics Innovations Pvt. Ltd.	2nd Floor, Plot No. 18, Sector 1, HUDA Techno Enclave, Madhapur, Hyderabad, Telangana - 500081, India Phone: 040-48510282 Email: info@techmologics.com	2022-2023	5 years	Internship to the students of VFSTR Orientation to students of VFSTR to enhance the entrepreneurial and employment skills	11
22	Government Organization	C-DAC - Center for development of Advanced computing - Pune.	S.No. 34, Pune University Campus, Ganesh Khind, Pune, Maharashtra - 411007, India Phone: +91-20-25503100 Email: corpeom@cdac.in	2022-2023	3 years	Student Training programmes, Internship opportunity.	45
23	Academic Institution	Mizoram University	Tanhiril, Aizawl, Mizoram - 796004, India Phone: +91-389-2330654 Email: registrar@mzu.edu.in	2022-2023	5 years	Student Skill Development programe	21

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24	Industry	Bycus Therapeutics Pvt. Ltd.	Gachibowli, Hyderabad, Telangana - 500046, India Email: info@bycusbio.com.	2022-2023	5 years	Internships to VFSTR students Hands-on training to the faculty members of VFSTR Workshop sessions for both faculty and students	25
25	Industry	Sahasra Crop Science Pvt. Ltd.	Plot No. 45, Road No. 2, Sagar Society, Banjara Hills, Hyderabad, Telangana - 500034, India Phone: +91-9374-299-299 Email: info@sahasracropscience.com	2022-2023	5 years	Student Interactive sessions	32
26	Industry	Hetero Biopharma Limited	H. No. 8-3-166/1&2, 105 to 108, 1st Floor, G Block, East Wing, Challa Estates, Erragadda, Telangana - 500018, India Phone: +91-40-23704923 Email: info@hetero.com	2022-2023	5 years	Internship opportunities to VFSTR students. Placement opportunities to the deserving students of VFSTR	11
27	Industry	Investors Organization Unified for Technology (IOUT)	Venkata Sai Associations, Flat No-45 CRDA, Vadlamudi, Chebrole, Guntur, Andhra Pradesh, India - 522213 Email: ioutatv20@gmail.com	2022-2023	2 years	Placement drives for CSE,IT,EEE,ECE,MCA,M.TECH and Mechanical engineering branches in VFSTR.	13
28	Industry	Biognosys	#8-148/174/11, Near ALEAP Industrial Area, NRI Colony, Pragathi Nagar, Hyderabad - 500090, Telangana, India Phone: +91 - 88855 66355 Email: ceo@biognosys.in	2022-2023	5 years	Internship opportunities to VFSTR students. Hands-on training to the faculty members of VFSTR. Workshop sessions for both faculty and students.	15
29	Academic Institution	Andhra University	Waltair Junction, Visakhapatnam, Andhra Pradesh 530003, India Phone:+91-891-2844000 Email: enquiry@andhrauniversity.edu.in	2022-2023	5 years	Workshop sessions organized by VFSTR/AU for both faculty and students. Feedback in designing and revising the curriculum at both the institutions.	34
30	Industry	Petrasys Global Pvt. Ltd.	102, Progressive Excellency, CHS, LTD, Kopar Khairane, Navi Mumbai, Maharashtra, India - 400709 Phone: +91-9833073463/9559944757 Email: philip@petrasys.com/contact@petrasys.com	2022-2023	Perpetual	Skill deveopment and Training programs for faculty as well as students.	55
31	Industry	Nova Agritech Limited	Sy. No. 251/A. Singannaguda (vi), Mulugu (M), Siddipet (D) - 502279, Telangana, India Phone: +91 84 54253446 E-mail: ipo@novaagri.in	2022-2023	5 years	Internships and skill development programs for students	18
32	Academic Institution	Sibar Institute of Dental Science	Takkellapadu, Guntur - 522 509, Andhra Pradesh, India Phone: + 91-863 -2292149, 2292249 Email: info@sids.ac.in	2022-2023	5 years	Training to the VFSTR students. Organizing Workshops/Seminars and conferences.	25

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33	Industry	Pulse Pharmaceuticals Pvt. Ltd.	Plot No. 18/1, Sector-3. HUDA Techno Enclave, Hitec City, Medhapur, Hyderabad - 500081, Telangana, India Phone: +91 40 23119992 Email: info@pulsepharma.net	2022-2023	3 years	Consultancy and internship programs	15
34	Industry	Manasa Life Sciences	Flat No: 5-9-262/2/1, IDA Rajiv Gandhi Nagar, Kukatpally, Hyderabad-500037, India Phone: +91-7901020060 Email: info@manasalifesciences.com	2022-2023	5 years	Internship opportunity for UG and PG Students	10
35	Industry	BioArtha Labs Pvt.Ltd.	BioArtha Labs Private Limited, Kanakapura Main Road, Thataguni, Bengaluru - 560082, Karnataka, India Phone: +91 9535935658 Email: info@bioarthalabs.com	2022-2023	5 years	Internship opportunities to VFSTR students Workshop sessions for students and faculty	32
36	Industry	Shree Icon Pharmaceutical Laboratories	Shree Icon Pharmaceutical Laboratories Research center, Ricemil Road,Christurajupuram, Vijayawada, Andhra Pradesh - 520010 Phone : +91-9985840126 Email: shreeiconpharma@gmail.com	2021-22	5 years	Training and Internship programs for the students VFSTR	11
37	Industry	FIZIKEM Laboratories Pvt. Ltd.	G. Kondur, Vijayawada, Andhra Pradesh - 521229, India Phone: +916301907128 Email: fizikem1988@gmail.com	2021-22	3 years	Training and Internship programs for the students VFSTR	14
38	Industry	ZenRise Clinical Research Pvt.Ltd.	ZenRise Clinical Research Pvt Ltd, Plot # 201, MythriNagar, Madinaguda, Miyapur, Hyderabad, India, 500049. Phone: 040-23041234 Email: info@zenrise-cro.com	2021-22	5 years	Training and Internship programs for the students VFSTR	10
39	Research	Advity Research Pvt. Ltd.	ADVITY RESEARCH PRIVATE LIMITED Archies Continental, Adj: Kukatpally Metro Station, Kukatpally, Hyderabad - 500072. Phone : +91 40 6908 9999 Email: info@advityresearch.com	2021-22	3 years	Research services in the programs of mutual interest Training and internship programs	42
40	Industry	Provis Biolabs Pvt. Ltd.	D.No.5-9-262/54P&55P 1st Floor,Prashanthi Nagar,Kukatpally, Hyderabad-50072,Telangana,India Phone: +91 90592 84828 Email: bd@provisbiolabs.com	2021-22	5 years	Internship opportunities to VFSTR students. Orientation program to students of VFSTR to enhance the entrepreneurial skills.	25
41	Industry	Gajavelli Spinning Mills Pvt. Ltd.	Chebrolu,Guntur,Andhra Pradesh - 522212 Phone: 99855 98792 Email: gajavellisales@gmail.com	2021-22	3 years	To provide internship opportunities to VFSTR students.	27

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42	Government	Arignar Anna Government Arts College, Namakkal	Namakkal, Tamil Nadu - 637002, India Phone: 04286-266323 Email: principal@aagacnkl.edu.in	2021-22	3 years	Summer Internship opportunity for Students (Duration: 1 or 2 Months) Research training through Projects for PG senior Students (Non-stipend). Collaborative research activities.	13
43	Industry	Sai Ganga Panakela (SGP)	Sai Ganga Panakela, Hafeezpet Road, KPHB, Hyderabad, Telangana - 500034, India Phone : +91 7331109988 , 18005698989 Email : info@sgprs.com	2021-22	3 years	Training and internship programs will be offered to the students of VFSTR by SGPPL as per the mutually agreed terms. Promoting research activities.	17
44	Industry	Teejay India Pvt. Ltd.	Plot No. 15, BIAC SEZ, Pudimadaka Road Atchuthapuram, Visakhapatnam - 531011, Andhra Pradesh, India Phone: +91 8924 237010/ +91 8924 237011 Email: info@teejay.com	2021-22	3 Year	Training programs in textile technology to the employees of Teejay India Pvt. Ltd. Brandix India Apparel City SEZ, Pudimadaka, Atchutapuram Mandal, Visakhapatnam. Student internships	38
45	Industry	Chettinad Cement Corporation Pvt. Ltd.	Door No.6-3-653, E2-Quena Square, 4th floor, Erramanzil, Somajiguda, Hyderabad-500 082. Phone: +91 9384034873 Email: info@chettinadcement.com	2021-22	3 years	Industry-focused professional Training programs and research projects in the field of Environment to the faculty and students of VFSTR.	25
46	Industry	Aqua Exchange Agritech Pvt. Ltd.	Aquaexchange Agritech Private Limited D-No:9-1-45/3/2, Varun Residency New Resapuvanipalem, Vishakhapatnam, Andhra Pradesh, India-530013, Phone: 1800 102 2379 Email: info@aqualexchange.com	2021-22	2 years	Internship to the students of VFSTR	11
47	Academic Institution	MNR College of Engineering & Technology	MNR College of Engineering & Technology, MNR Nagar, Fasalwadi, Sangareddy District, Telangana-502294 Phone: +91 -85000 56664 Email: p.mnrct@mnrindia.org	2021-22	3 Year	Collaborations with regard to research in the programs of mutual interest. Industry outcome-based research collaboration	2
48	Academic Institution	MNR Foundation for Research & Innovations	MNR Foundation for Research and Innovation MNR Nagar, Fasalwadi, Narsapur Road, Sangareddy-502294, Telangana (State) India. Phone:+91-040-23890835 (Ext. No: 470) Email: mnrfri@mnrindia.org	2021-22	3 years	1. As MNR-FRI and the VFSTR Jointly desire to undertake collaboration in research, teaching, and extension activities in the subjects of Biomedical Sciences, and Allied subjects,	4
49	Academic Institution	MNR Medical College & Hospital	MNR Nagar, Fasalwadi, Narsapur Road, Sangareddy - 502294 Phone: +91 - 85000 56667 Email: p.mnrmc@mnrindia.org	2021-22	3 Year	Collaborations with regard to research in the programs of Industry outcome-based research collaboration.	11

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50	Academic Institution	MNR College of Pharmacy	MNR College of Pharmacy, MNR Nagar, Fasalwadi, Narsapur Road, Sangareddy - 502294 Phone: +91 - 85000 56663 Email: p.mnrcop@mnrindia.org	2021-22	3 Year	Collaborations with regard to research in the programs of mutual interest. Industry outcome-based research collaboration.	3
51	Academic Institution	MNR Dental College & Hospital	MNR Dental College & Hospital MNR Nagar, Fasalwadi, Narsapur Road, Sangareddy - 502294. Phone: +91 - 85000 56668 Email: p.mnrdc@mnrindia.org	2021-22	3 Year	Collaborations with regard to research in the programs of mutual interest. Industry outcome-based research collaboration.	7
52	Research Institute	IIMR	ICAR-Indian Institute of Millets Research, Rajendranagar, Hyderabad, Telangana - 500030, India Phone: +91 - 040 - 2459 9300 E-mail: millets.icar@nic.in	2021-22	3 years	Translational research in collaboration between the partners, VFSTR and IIM to develop and commercialize the products. Planing and organizing the physical/ vertual events. Faculty and scientist exchange between VFSTR and IIMR	4
53	Academic Institution	Narasaraopeta Engineering College	Kotappakonda Road, Narasaraopeta - 522601, Palnadu Dist. Andhra Pradesh Phone: 086472 39905 Email : info@nrtec.in	2021-22	5 years	Research Collaboration and mentoring	2
54	Academic Institution	Korea University of Technology & Education (KOREATECH UNIVERSITY)	1600, Chungjeol-ro, Byeongcheon-myeon, Dongnam-gu, Cheonan-si, Chungcheongnam-do, South Korea Phone: +82 (0) 41 560 1483 Email: ipsi@KOREATECH.ac.kr.	2020-21	5 years	Student Exchange programme	2
55	Industry	Jocil Limited	D. No. 77-27-4/2, Ashok Nagar, Kurnool Road, Guntur, Andhra Pradesh - 522006, India Phone: +91 863 2290190 Email: jocil@jocil.net	2019-20	3 years	Internship opportunity for students	34
56	Research Institute	ICRISAT	Patancheru, Hyderabad, Telangana - 502324, India Phone:+91 40 3071 3071 Email:info@icrisat.org	2019-20	5 years	ICRISAT and the VFSTR desired and intend to develop co-peration and collaboration in research for development perticularly plant breeding,crop physiology,molecular biology,Bio-informatics,genomics and proteiomics research, soil science,machinery and agricultral engineering.	8
57	Industry	Virchow Biotech	Plot No 319, 320, 3rd floor East Avenue Swamy Ayappa Society Madhapur, Hyderabad – 500081 Phone: +91-9700017883 +91-9700017820 Email: info@virchowbiotech.com	2019-20	3 years	Internship for UG and PG students. Development programns for the benefit of young professionals of Biotechnology as well as the industry.	43

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58	Industry	Samarth Infra Eng. Ltd.	Police Station, Lokmanya House, Office No. 40 & 41, 5th Floor, Paud Rd, opposite Kothrud, Pune, Maharashtra - 411038 Phone: 080802 26790 Email: admin@samarthinfratech.in	2020	3 years	Training and Placements to the Students of VFSTR Training and research Development activities to the Teaching staff.	23
59	Industry	Myneni IT Solutions Pvt Ltd	H-No-7-1-621-244, 1st Floor, 128/2RT, Sanjeev reddy Nagar , Hyderabad, Telangana, India - 500038. Phone: 7947129559 Email address - kandrusanjeevroc@gmail.com.	2019-20	3 years	Skill deveopment and Training programs for faculty as well as students. Joint Research opportunity	5
60	Industry	Amaravathi Labs Pvt Ltd	D. No. 8-225, Bonthapadu X roads, Etukuru Hanuman Nagar, Service Rd, Guntur, Andhra Pradesh Phone: 9866334445 Email: amaravathilabs@gmail.com	2019-20	3 years	Skill development and Training programs for faculty as well as students. Internship facility to Students	4
61	Industry	Smartron India Pvt Ltd	5th Floor,Corporate court,next to sheraton,Opp.ICICI Towers,Finanacial district, Nanakaraguda,Telangana,500032. Phone :040-48525761 Email: mahesh.lingareddy@smartron.com	2019-20	5 years	1.Industrial and In plant training. 2.Technical Resource Support. 3.Internship for students.	5
62	Industry	ANI Generics Private Limited	#202,Plot No:129,P.J.R arcade, Sri sai nagar colony,Kukatpally, Near: Nizampet 'X' roads,Sai Nagar,Kukatpally,Hyderabad,Telangana,500072 Phone: 040 6999 3639 Email: upendra@anigenerics.com.	2019-20	3 Years	Internship facility to Students	12
63	Industry	Innovative Foods Limited	Mogili villaga,Chittore District,AP-517416 Phone: 0478 287 4417 Email: cosecy@sumeru.net	2019-20	5 years	In plant Training for faculty and students of VFSTR during semester break (2-3 weeks). Internship for Students	38
64	Industry	Windeed IT Solutions	FLAT NO 408, BLOCK-1, SMR VINAY CITY, MIYAPUR, , HYDERABAD, Telangana, India - 500049. Email address - vara.pelluri@gmail.com.	2019-20	4 years	Training of students of VFSTR. Staff Training, research and development activities.	25
65	Industry	Hughes Systique Pvt. Ltd	Level 8, Umiya Business Bay, Tower 1, Cessna Business Park, Marathahalli ORR, Bengaluru - 560103, Karnataka, India. Phone: +91-80-67577810 Email: info@hsc.com	2019-20	4 years	Training of students of VFSTR. Staff Training, research and development activities.	8

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66	Industry	Edu Bioskills	Xe3 Edubio skills,Solutions Pvt Ltd. Raheja Arcade No.1/1,Koramangal Industrial Layout, Bangalore - 560034,Karnataka,India Phone: 9986660087 Email: enquiry@edubioskills	2019-20	5 years	Internship to Biotechnology students	12
67	Industry	Bhat Biotech	Dr. Shama Bhat, MD Bhat Bio-tech India (p) ltd. No. 11A, IV Cross Veerasandra Industrial Area, Electronics City, Bangalore Karnataka 560 100, Phone: 7349115551 Email: info@bhatbiotech.com	2019-20	5 years	Industrial training in the manufacturer of diagnostic kits to students and faculty of Biotechnology	7
68	Research Institute	Mazumdar Shaw Medical Foundation	Mazumdar Shaw Medical Foundation A-Block, 8th Floor,No:258/A,Anekal Taluk, Hosur road,Bommasandra,Industrial area, Bangalore- 560099 Phone: 08071 222 351 Email: msmf@ms-mf.org	2019-20	5 years	Student and faculty interaction	5
69	Industry	Netsoft Infotech	No. 2453, 2nd Floor, 9 Main, 17 E Cross, BSK 2 Stage, Bengaluru 560070. India. Phone: +91 96060 24604 Email: info@knetsoft.in	2019-20	5 years	Internship opportunity to VFSTR students	2
70	Industry	Harita Fehrer Limited	National Highway 4, Meevarukuppam, Tamil Nadu,602117 Phone: 044 6712 1360 Email: tamilkehler@hariteferrer.co.in	2019-20	5 years	In plant Training for faculty and students of VFSTR during semester break (2-3 weeks). Internship for Students	14
71	Industry	KEC International Ltd	RPG House, 1st Floor,463, Dr. Annie Besant Road,Worli, Mumbai – 400030, India. Phone: +91 22 66670200 Email: darukaa@kecrpg.com	2019-20	5 years	Student Internship	5
72	Industry	TeleDNA Communications Pvt. Ltd	2ND FLOOR, NO 66. ISHWARI RAMACHANDRA NILAYA, 2ND CROSS, 29TH MAIN ROAD, BTM LAYOUT 1S T STAGE , BANGALORE, Karnataka, India - 560068. Phone: +91- 80- 66661130 - 31 Email address - finance@teledna.com.	2019-20	5 years	Internship opportunities for B.Tech, M.Tech, BBA & MBA Students	13
73	Industry	PGP Electronics Private Limited	Registered address of Pgp Electronics is B-23/C/3 ELECTRONIC COMPLEX, KUSHAIGUDA , HYDERABAD, Telangana, India - 500062. Phone: 09908758888 Email address - pgp.electronics@gmail.com.	2018-19	5 years	Internship opportunity to VFSTR students.	9

S.No	Organisation with which MoU is signed	Name of the institution/ industry/ corporate house	Address	Year of signing MoU	Duration	List the actual activities	Number of students/teachers participated
74	Industry	Plumsoft Solutions Private Limited	Registered address of Plumsoft Solutions is Plot no: 492, Flat no: 302, Classic Arcade, Near Matrusri Society Office, Matrusri Nagar, Miyapur , Hyderabad, Telangana, India - 500049. Phone: 08639375157 Email address - accounts@plumsoft.com.	2018-19	5 years	Staff Training, Research and development activities. Training to the VFSTR students.	2
75	Industry	Alien Techno Solutions, Bangalore	NO. 16, 2ND MAIN, VASANTH NAGAR, BANGALORE , NAGAR, BANGALORE, Karnataka, India - 560052. Phone: +91-9880078899	2018-19	5 years	Staff Training, Research and development activities. Training to the VFSTR students.	3
76	Industry	DoelSoft IT Services	H. No. 2-38/S, 257, Stalin Nagar Miyapur , Hyderabad, Telangana, India - 500049 Phone: 040 6658 8367 Email address - harshanag2002@gmail.com.	2018-19	4 years	Internship and job opportunity to the pre final and Final year students of VFSTR.	32
77	Industry	Magikminds	7E&7F, 7th Floor, Vaishnavi's Cynosure, 2-48/5/6, P Janardhan Reddy Nagar, Gachibowli, Hyderabad, Telangana 500032 Phone: 040 4816 2222 Email Id: contact@magikminds.com	2018-19	5 years	Internships opportunity to students of VFSTR	5
78	Industry	Hiremee	Karpaga Assessment App Matrix Services Pvt. Ltd. Seetha Complex, No. 483, HBCS Ideal Homes Layout 18th Main Road, Rajarajeswari Nagar, Bangalore – 560098 Phone: +91-879 292 2796 Email: privacyofficer@hiremee.co.in	2018-19	5 years	Free Online and app based platform for students to find best job	9
79	Industry	Thrive Solar Energy Private Limited	Plot No. 38/B, Phase III, near Icomm, phase I, Hyderabad, Telangana - 500051 Phone: 9849639995 8688491212 Email: john@thriveenergy.co.in	2018-19	5 years	Industrial Training, Onsite Training, Technical resource support, Internship for students	13
80	Industry	Kwality Photinics Private Limited	29AB, Electronic Complex, Street Number 11, near Tsii Office, ECIL, Indl Canteen, Kushaiguda, Hyderabad, Secunderabad, Telangana 500062 Phone: 072070 74339 Email: sales@kwalityindia.com	2018-19	5 years	Staff Training, Research and development activities.	12

S.No	Organisation with which MoU is signed	Name of the institution/ industry/ corporate house	Address	Year of signing MoU	Duration	List the actual activities	Number of students/teachers participated
81	Industry	Team Mate Technologies Private Limited	Registered address of Teammate Technologies is D. No. 9-38/20, Sowbhagya Nagar Colony, Hydershakote, Hyderabad, , Rangareddi, Telangana, India - 500091. Phone: 083744 45997 Email address - teammatetech@gmail.com.	2018-19	5 years	Staff Training,Research and development activities. Internship opportunity to the VFSTR students.	36
82	Industry	CLAAPS Technology Services, Hyderabad	Flat No. 105, Green Land Villa Apartment,Opp 99 Vings Bakery,prakash Nagar,Narasaraopet, Ap-522601,India. Phone: +91 7947144782 Email : info@claaps.com	2018-19	5 years	In plant training for faculty and students of VFSTR during semester breaks. Technical resource support.	21
83	Industry	Golden Gate Constructions	D-12, 1st floor Vijay Nagar , DELHI, Delhi, India - 110009. Email address - himanshuguptalrg@gmail.com.	2018-19	6 years	Industrial and In plant training. Technical Resource Support. Internship for students.	23
84	Industry	Ananth Technologies Limited	Ananth Technologies PVT. LTD. 39, Ananth Info Park, Phase - II Hi-Tech City , Madhapur, Hyderabad, India 500 081 Phones: +91-40-66156789, 66156615 Email : mail@ananthtech.com	2017-18	5 years	Academics, industry and research collaboration in area of mutual intrest. Student and faculty members exchange visits for project internship. Organizing seminars, conferences,short term courses and workshops jointly for mutual benefits.	15
85	Industry	VIGNU IT Solutions Pvt Ltd	H.NO.1-2-34,1ST FLOOR,PLOT.NO.3 GAUTAMI NAGAR,HYDER NAGAR,NEAR MAPLES RD , NIZAMPET, Telangana, India - 500072. Email address - ceo.innoveinfotech@gmail.com.	2017-18	5 years	Staff Training,Research and development activities. Internship & Training opportunity to the VFSTR students.	19
86	Academia	Dongseo University	Dongseo University, 47 Jurye-ro, Sasang-gu, Busan 47011, Korea Phone : 82-51-320-2092, 2093 FAX : 82-51-320-2094 Email: dsuapply@dongseo.ac.kr	2017-18	5 years	Exchange of staff, students,Language training & Accreditation Programs	11
87	Industry	Questease Solutions	Address: 8-1-346, A/6, Tolichowki Rd, Near to kholoni restaurant, Daulat Gulshan Colony, Deluxe Colony, Janaki Nagar Colony, Toli Chowki, Hyderabad, Telangana 500008 Phone: 096180 24545 Email: info@questeasesolutions.com	2017-18	5 years	Staff Training,Research and development activities. Internship & Training opportunity to the VFSTR students.	4
88	Industry	Neo Soft Technologies Private Limited	Bansankari, 2nd stage, Bangalore, Karantaka,560070 Email: support@neosoft-tec.com	2017-18	5 years	Staff Training,Research and development activities. Internship & Training opportunity to the VFSTR students.	10



Report on International Conference on “Plant Health in Asia: Research Priorities and Partnerships” 17th to 18th December 2024

The International Conference on Plant Health in Asia (ICPHA 2024) demonstrates a strong alignment with SDG 17.2.2, which measures the volume of official development assistance (ODA) committed to partnerships.

While the conference itself is not an ODA flow, it serves as a direct and tangible manifestation of the type of partnership that SDG 17.2.2 aims to encourage and measure. The conference's core purpose and structure are a direct implementation of the "partnership" principle.

Here is the correlation broken down:

1. Direct Fulfilment of the Partnership Principle:

SDG 17.2.2 is fundamentally about fostering international cooperation. The ICPHA 2024 was a direct embodiment of this, being organized by:

- **EUPHRESKO III** (European consortium)
- **VFSTR** (Indian University)
- **APAARI** (Asia-Pacific intergovernmental organization)

This tripartite collaboration between European, Indian, and Asia-Pacific bodies is a textbook example of the North-South and multi-stakeholder partnerships that SDG 17 promotes.

2. Multi-Stakeholder Engagement:

The conference went beyond traditional academic collaboration, actively engaging the key actors essential for sustainable development:

- **Academia & Research:** VFSTR, ICAR, ICRISAT, CABI, etc.
- **Public Sector:** Representatives from the Government of Andhra Pradesh.
- **Private Sector:** Industry panel with companies like Provivi Inc. and Farm Sathi.
- **Civil Society/Farmers:** A dedicated farmers' panel ensuring grassroots perspectives were included.

This inclusive approach is a core tenet of SDG 17, aiming to mobilize and share knowledge, expertise, and technology.

3. Outcome-Oriented Collaboration for Development:

The conference was not merely a discussion forum; it produced concrete, actionable recommendations for addressing plant health challenges in Asia—a critical issue for food security (SDG 2), economic growth (SDG 8), and climate action (SDG 13). The partnerships formed and strengthened here are precisely the kind that would be supported and measured by ODA flows under SDG 17.2.2.



Report on Global Conference on “Climate Smart Agriculture - 2023” **27th to 29th March 2023**

This Global Conference on Climate Smart Agriculture (GCCSA 2023) demonstrates a strong and direct correlation with SDG 17.2.2, which measures the volume of official development assistance (ODA) committed to partnerships.

While the conference itself is not an ODA flow, it is a prime example of the multi-stakeholder partnerships that SDG 17.2.2 aims to foster and quantify. The event's organization and participation structure perfectly embody the "partnerships for the goals" principle.

Here is the specific correlation:

1. Multi-Stakeholder Collaboration as a Core Feature:

The conference was not organized by a single entity but was a collaborative effort involving:

- **International & Intergovernmental Bodies:** APAARI, ICRISAT, CIFOR-ICRAF.
- **National & State Agricultural Universities:** Prof. Jayashankar Telangana State Agricultural University (PJTSAU), Dr. Y.S.R. Horticultural University.
- **Industry & Private Sector:** Representatives from seed companies (e.g., NRI Seeds, Sangam Seeds), fertilizer companies (Dasarath Fertilizers), and banks (NABARD, Punjab National Bank).
- **Farmers and Farmer Organizations:** A dedicated panel discussion included multiple progressive farmers, ensuring grassroots input.

This diverse consortium is a textbook manifestation of the multi-stakeholder partnerships that SDG Target 17.2 seeks to encourage.

2. Alignment with the Purpose of SDG 17.2.2:

The metric 17.2.2 tracks ODA flows that support these very types of collaborative frameworks. The GCCSA 2023 served as a platform and an outcome of such a framework, directly addressing global challenges (climate change, food security) through shared knowledge, technology transfer, and policy dialogue—the core objectives that ODA for partnerships aims to achieve.

3. Outcome-Oriented Partnership for Development:

The conference produced concrete, actionable recommendations for promoting Climate-Smart Agriculture. These outcomes are the direct result of the synergistic partnership between the academic, research, private, and farming communities. This demonstrates how effective partnerships (the target of SDG 17.2) lead to tangible progress on other SDGs, particularly SDG 2 (Zero Hunger) and SDG 13 (Climate Action).

**Proceedings of the International Conference on
“Plant Health in Asia: Research Priorities and Partnerships”
17th to 18th December, 2024**



Organized by



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The Department of Agricultural and Horticultural Sciences (AHS), Vignana's Foundation for Science Technology and Research (VFSTR) organized " **International Conference on "Plant Health in Asia: Research Priorities and Partnerships "** on 17th - 18th December, 2024, at VFSTR (Deemed to be University), Vadlamudi, Guntur in collaboration with Asia-Pacific Association of Agricultural Research Institutions (APAARI), and European Plant Health Research and Coordination III (EUPHRESKO III), knowledge partners International Crops Research Institute for the Semi-Arid tropics (ICRISAT), Centre for International forestry Research (CIFOR), World Agroforestry, Centre for Agriculture and Bioscience International (CABI), Indian Phytopathological society, Acharya N.G. Ranga Agricultural University (ANGRAU), Dr. Y.S.R. Horticultural University (YSRHU), Plant Protection Association of India (PPAI). The two day programme was organized in six technical sessions and 2 key note sessions besides inaugural session, two panel discussion sessions and valedictory session.

Prelude:

The two-day event of the International Conference was organized with an intention to congregate the experts in the field of —Plant Health in Asia: Research Priorities and Partnerships to establish better connections in the field of Plant Health Research. The conference's key objective was to identify and prioritize critical plant health issues while fostering the development of potential partnerships aimed at addressing these challenges. By focusing on the identification of key plant health concerns, the conference aimed to promote collective action and innovative solutions. Moreover, it emphasized the importance of building strong partnerships between researchers, policymakers, industry leaders, and farmers to effectively tackle plant health issues on a global scale.

The conference holds great importance as it serves as a platform for bringing together policymakers, academicians, researchers and development institutes, industry, and farmers to the field. The primary purpose is to meet global food security challenge demands, feeding two billion more people by 2050, which requires innovations in plant health research to protect crops from pests and diseases. Pests currently cause 20-40% of global crop yield losses, costing \$290 billion annually. Healthy crops are crucial for sustaining agricultural trade, ensuring compliance with international standards, and maintaining market access. Poor plant health can lead to trade restrictions and economic losses. Thus, effective plant health management is essential for global food security and competitive trade. The six sessions are organized around five sub-themes: i) Molecular Breeding and Gene Editing Approaches for Biotic Stress, ii) Changing pest scenario, Epidemiology, Forecasting & Monitoring in relation to Climate change (Insect pests), iii) Changing pest scenario, Epidemiology, Forecasting & Monitoring in relation to Climate change (Plant Diseases), iv) Sanitary, Phytosanitary and Quarantine Regulations, v) Artificial Intelligence and IoT for Plant Health Management.

During the conference, a total of 22 invited papers (6 Keynote and 16 Lead) and 19 oral presentations were presented across various sessions. Additionally, 8 abstracts were displayed for poster presentations, adding to the wealth of knowledge shared. Furthermore, the conference featured two panel discussions focusing on: i) Panel Discussion of Farmers, ii) Panel Discussion of Industries. The recommendations from each session are summarized below.

Day 1: 17th, December 2024

Inaugural session

The inaugural session started with inviting the dignitaries on to the dais; Dr. T. Ramesh Babu, Dean School of Agriculture and Food Technology, Vignan's Foundation for Science Technology and Research (VFSTR), Dr. M. Malakondaiah, Former Director General of Police, A.P. & Member, Executive Council, VFSTR, Dr. Ravi Khetarpal Executive Director, Asia - Pacific Association of Agricultural Research Institutions (APAARI), Bangkok; Dr. Baldissera Giovanni Coordinator, European Plant Health Research and Coordination (EUPHRESO III); Dr. K. S. Varaprasad Project Manager (USDA- SPS Project) APAARI & Former Director, ICAR-IIOR, Hyderabad, Dr. Lavu Rathaiah Hon'ble Chancellor, VFSTR & Chairman, Vignan Group of Institutions; Col. Prof. P. Nagabhushan Hon'ble Vice Chancellor, VFSTR; All the dignitaries had stepped forward to light the lamp. Dr. T. Ramesh Babu, Dean SAFT, VFSTR and Organizing Committee Chair enlightened about the purpose of the International Conference on —Plant Health in Asia: Research Priorities and Partnerships-2024.



Dr. Babu expressed his immense pride and great honour in extending a warm welcome to all attendees of the International Conference on “Plant Health in Asia: Research Priorities and Partnerships” and outlined the conference's agenda, which focuses on innovating and promoting sustainable agriculture models aimed at enhancing nutritional security and fostering economic prosperity. Additionally, he highlighted the initiation of consultancy services designed to empower farmers and entrepreneurs by establishing resilient agroforestry systems and integrating traditional wisdom and also emphasized the state government's vision to transition 6 million farmer households and 2 million landless workers in Andhra Pradesh by 2035. Encouraging all participants, he urged them to actively engage in the conference, leveraging this unique opportunity to exchange knowledge, collaborate, and contribute to the advancement of plant health research and practices.



Dr. M. Malakondaiah, Former Director General of Police, A.P., & member, Executive Council, VFSTR, expressed gratitude to all the delegates and dignitaries who made the effort to attend the conference, emphasizing that Dr. Ravi Khetarpal is an expert, and it is a privilege for him to have him as Conference Chair. It was hoped that the discussions taking place would be beneficial to the farming community.



Dr. Ravi Khetarpal, Executive Director, Asia-Pacific Association of Agricultural Research Institutions (APAARI), Bangkok, Chairman of the Global Forum on Agricultural Research (GFAR), mentioned that APAARI was established by the FAO of the United Nations about 35 years ago and is now seeking its own independent legal status as an intergovernmental organization (IGO) in Thailand. The organization works with the mission of improving agri-food research and innovation systems in Asia and the Pacific. Emphasizing the global projects undertaken by APAARI, Dr.

Ravi noted that another key point for the organization is its involvement in the world of agroecology, in partnership with Rythu Sadhikara Samstha (RySS), Govt. of A.P., India, which was also highlighted. Dr. Ravi expressed confidence that they are on the verge of achieving something great. Commending Vignan University, Dr. Ravi acknowledged its great potential. Having served on the school research board, he has seen firsthand the efforts being made beyond capacity. He noted that Vignan University excels in areas where no other institution competes, giving it a unique selling point. Dr. Ravi is confident that the university will continue to move forward and achieve its goals. Despite being located in a corner of Guntur, Vignan University is steadily making its mark on the international map and is poised to gain global recognition through numerous collaborations and high-quality research.



Dr. Baldissera Giovani, Coordinator, European Plant Health Research and Coordination (EUPHRESKO III), expressed his profound happiness, stating that standing in front of the audience as a representative of EUPHRESKO was a great honour, and expressed his gratitude for hosting the event in such a beautiful location full of young people, who represent the next generation of talented professionals to be guided by the professors who possess today's knowledge. Dr. Baldissera shared that he felt a sense of disconnection between people, which is why EUPHRESKO III has emerged. EUPHRESKO III is a global phytosanitary research coordination initiative that spans different countries and regions, including South East Asia. Emphasizing that, in his view, global efforts refer to ensuring that all actors are represented and that all perspectives are considered in order to meet the diverse needs of various people and representatives from local authorities.



Dr. K. S. Varaprasad, Adviser, Biosecurity and Bioresources, expressed his gratitude towards Dr. Baldissera for accepting the proposal from Dr. Ravi Khetarpal to hold the conference this year and mentioned that it is very inspiring to work with EUPHRESKO. He stated that APAARI is extremely happy to collaborate with Dr. Baldissera's team. Dr. Varaprasad applauded the beloved Chairman of VFSTR, noting that he is not only an entrepreneur but also exemplifies excellence in performance in whatever he does. He expressed that VFSTR is the best host he has ever seen, offering all the necessary

facilities, and he is extremely thankful. Dr. Varaprasad shared his pride in being associated with Dr. Vijay Kumar, highlighting that working with him has always provided an extra privilege whenever he travels to any country outside of India. Having visited 45 countries,

Dr. Varaprasad noted that they initiated the agro ecology program in Andhra Pradesh in collaboration with these countries, many of which are now working with global organizations. He acknowledged that this represents a significant opportunity for India and Asia, as the first two phases of EUPHRESCO were not global and were mostly confined to EUPHRESCO itself, while the third phase has expanded to a global scale. Dr. Varaprasad drew attention to the undeniable fact that the younger generation must possess professional competence and a strong commitment to managing such projects, as well as the essential infrastructure, laboratories, and human resources to lead the project and foster global networking.



Dr. Lavu Rathaiah, Hon'ble Chancellor of VFSTR & Chairman of Vignan Group of Institutions, praised the conference on plant protection as a commendable initiative in a sector where 60 percent of the population is engaged in agriculture. Even minor advancements in this field, he noted, could lead to significant improvements. The conference was expected to foster productive discussions, particularly in areas where small enhancements in production could create a substantial impact.

Dissatisfaction was expressed regarding previous loan policies that prevented farmers with four to five acres of land from securing loans. However, with the recent amendment by the RBI, loans can now be obtained without security. The feasibility of natural farming under current conditions was questioned, citing Sri Lanka as an example where government policies promoting natural farming resulted in failure and food shortages. The viability of natural farming was emphasized as dependent on production levels matching those of conventional methods, highlighting the necessity of scientific research and validation before widespread adoption. The importance of natural pest control methods was also underscored, as they could help address concerns about consuming contaminated food. Additionally, the role of IoT technology in enhancing agricultural management was highlighted.



Dr. T. Vijay Kumar, IAS (Retd), Executive Vice-Chairman, Rythu Sadhikaraka Samstha (RySS) & Advisor, Department of Agriculture and Cooperation, Govt. of Andhra Pradesh, INDIA. In his address, he highlighted the significant growth of RySS, which started in 2016 with 40,000 farmers and has now reached 1 million participants statewide. He emphasized that natural farming progresses gradually and is a voluntary choice for farmers, contrasting it with Sri Lanka's abrupt elimination of chemical fertilizers and – “Natural Farming Mimics Nature to boost biodiversity, resilience, and planetary health while addressing the CLIMATE CHANGE”. He also noted farmers are natural scientists who experiment, learn, and lead transformative changes in agriculture. He cited remarkable benefits of natural farming, including increased yields, lower costs, and higher net incomes, beginning in the first year, illustrating its resilience to disasters, sharing examples of banana and cotton crops surviving floods while chemically farmed crops suffered extensive damage. He concluded his address with the inspiring statement, "Every farmer has the power to heal the planet."



Col. Prof. P. Nagabhushan, Hon'ble Vice Chancellor, VFSTR, expressed that he was wondering about maintaining plant health, stating that the reason for maintaining plant health is to increase yield and extract more from the plant. He highlighted that the Government of India has recognized the importance of acknowledging previous learning and the inherent knowledge gained by farmers in the field of agriculture, which is beneficial, and from their experiences, much valuable knowledge can be

gained, allowing them to be equated with diploma holders and reach greater heights. He highlighted that —Farming should be embraced as entrepreneurship, elevating its status and inspiring innovation while making it aspirational to attract youth and encourage women to see farmers as ideal life partners, driving rural prosperity.

The compendium for the conference and Book on Good Agricultural Practices (GAPs) in Palms (Coconut, Oil Palm and Palmyrah) was released by the dignitaries present on the dais.



Dr. T. Naresh, Coordinator, AHS, first and foremost expressed sincere appreciation to Dr. Vijay Kumar, IAS (Retd), for his inspiring presence and words of encouragement, which set the tone for the event. He extended his immense gratitude to Dr. Ravi Khetarpal, Chairman of the Conference, for his unwavering support. He expressed that the conference is going to be enlightening and thought-provoking and acknowledged his privilege to extend heartfelt gratitude to all

those who have graciously made time in their busy schedules to attend. To the esteemed speakers and panellists, he expressed that he is indebted to all the upcoming sole contributions, stimulations, discussions, and innovative perspectives. He stated that the expertise is going to elevate the quality of the conference and enrich our understanding. He extended his gratitude to all the sponsors and partners who have been instrumental in bringing the event to fruition. He extended a warm thanks to the Organizing Committee and Technical Committee for their dedication. He further stated to everyone that we should all carry the momentum forward and continue striving for excellence in respective fields.

Keynote Presentations

Chairperson: Dr. Ravi Khetarpal, Executive Director, APAARI, Bangkok.

Co- Chairpersons: 1) Dr. S. V. Ramana Rao, Principal Scientist (Agrl.Economics)
ICAR-IIOR, Hyderabad.

2) Dr. C. Kannan, Principal Scientist (Plant Pathology), ICAR-IIRR,
Hyderabad.

Rapporteurs: 1) Dr. Rajanand Hiremath, Asst. Professor, AHS, VFSTR

2) Dr. Pandu U., Asst. Professor, AHS, VFSTR

During this session, two prominent keynote presentations took center stage and captivated the delegates.

1. Plant Health in the Era of Agri-food Systems Transformation

- Dr. Ravi Khetarpal

Dr. Ravi Khetarpal, Executive Director of APAARI, Bangkok, delivered an insightful presentation titled "Plant Health in the Era of Agri-food Systems Transformation," addressing plant health challenges and opportunities in the Asia-Pacific region. He emphasized the growing importance of plant health in ensuring sustainable agricultural practices and food security.

The presentation outlined key objectives, beginning with the mitigation of pesticide residues to enhance food safety. He also stressed the need to improve trade opportunities through better residue management practices.

- A significant focus was on managing aflatoxin contamination to be addressed through the – “One Health Approach”. He also highlighted the need for improving phytosanitary trade compliance, particularly in Bangladesh.
- He discussed several ongoing projects aimed at addressing objectives like focuses on developing strategies to reduce pesticide residues in agricultural produce, aflatoxin management to ensure food safety and public health, and efforts to enhance phytosanitary standards. Building robust compliance frameworks to meet international standards was emphasized as a critical strategy. Capacity development was underscored as a cornerstone of plant health management.
- Dr. Ravi concluded by advocating for a 360-degree approach to capacity development, integrating research, policy, and practical interventions.

2. Plant Health Research Coordination: An International Endeavour

- Dr. Baldissera Giovani

Dr. Baldissera Giovani, Coordinator, EUPHRESKO III, delivered an enlightening presentation focusing on the current status of plant health research under European conditions. He provided an overview of the EUPHRESKO research and development landscape, emphasizing its role in advancing plant health through coordinated efforts. He highlighted the importance of focusing research on sustainable plant protection methods against pests and pathogens.

- The presentation shed light on the organizations, research institutes, academia, and industry networks actively engaged in plant health research. He also discussed recent

research initiatives, including the study of *Spodoptera frugiperda* (fall armyworm) invasion and associated pathogens in Europe.

- Building a global network under EUPHRESKO III was presented as a critical goal to make research more impactful. Further, he emphasized the need for a regional prioritization system to facilitate the engagement of stakeholders. He outlined the importance of aligning research with phytosanitary needs at various levels. Identifying and addressing these requirements at the national, regional, and global levels was deemed essential for effective plant health management. The role of international collaboration in combating plant health threats was underlined as a vital strategy.
- Dr. Giovani highlighted the benefits of building synergies between research and industry to advance practical solutions. The presentation emphasized the significance of proactive measures to prevent the spread of invasive species and pathogens and presented EUPHRESKO III as a model framework for fostering global cooperation.
- The presentation concluded with a call to expand EUPHRESKO III's global reach for better coordination and impact and for South East Asia to contribute by providing research expertise and political support to global phytosanitary research coordination.

Recommendations from the keynote presentation:

1. Advocate for the **One Health Approach** to manage aflatoxin contamination and pesticide residues, linking plant health to broader environmental, animal, and human health systems.
2. Enhance phytosanitary standards through capacity-building programs for farmers, exporters, and policymakers, ensuring compliance with international trade standards.
3. Establish frameworks similar to **EUPHRESKO III** in Asia to prioritize regional research needs, address pest and pathogen challenges, and foster collaboration across countries.
4. Build global networks linking Asian and European research efforts, focusing on shared challenges like the invasion of pests (e.g., fall armyworm) and emerging plant pathogens.
5. Facilitate collaborations between academia, industry, and policymakers to translate research outcomes into scalable, practical solutions.
6. Implement a **360-degree approach to capacity development**, integrating education, research, and extension services to equip stakeholders with the necessary skills and knowledge.
7. Establish regional centers of excellence for plant health research, focusing on local and global threats to agriculture.
8. Encourage partnerships between governments, research organizations, and the private sector to co-develop innovative solutions for plant health issues.
9. Invest in scalable technologies for sustainable agriculture and export-driven production systems.



Technical session I

- Chairman** : Dr. TVK Singh, Former Dean of Agriculture, PJTSAU, Hyderabad, Telangana State, India
- Co-Chairperson** : 1) Dr. B. K. M. Lakshmi, Principal Scientist & Head, MRS, Nuzvid.
2) Dr. K. Sireesha, Principal scientist (Ento.), Horticultural research station, Lam, Dr. Y.S.R. Horticultural University
- Rapporteurs** : 1) Dr. B. Srinivasulu, Asst. Professor, AHS, VFSTR
2) Dr. P. Praveen Kumar, Asst. Professor, AHS, VFSTR

During this session, three distinguished lead papers and one oral presentation took center stage and captivated the delegates.

1. Global Status and Effective Management Options for tackling the South East Asian Thrips, *Thrips parvispinus* (Karny, 1922)

- Dr. Sridhar V.

Dr. Sridhar V, Principal Scientist (Entomology), ICAR-IIHR, Bangalore, presented on the global status and management of the invasive pest *Thrips parvispinus*, a significant threat to horticultural crops such as chilli. He attributed its spread to globalization, climate change, and ineffective early detection, highlighting its severe economic impact, with yield losses exceeding 85% in affected areas.

- Management strategies emphasized an Integrated Pest Management (IPM) approach, including cultural practices, biological controls, and eco-friendly chemical treatments. He also noted the effectiveness of white traps for monitoring and control, stressing the need for collaborative research to fill knowledge gaps in the pest's bioecology.

2. An overview of fruit flies (Diptera: Tephritidae) of south and southeast Asia

- Dr. K. J. David

Dr. K. J. David, Senior Scientist, ICAR-NBAIR, Bengaluru, presented an overview of fruit flies in South and Southeast Asia, underlining their diversity and economic implications. With over 5000 species globally and around 330 identified in India, fruit flies like *Bactrocera dorsalis* and *Zeugodacus cucurbitae* were highlighted for their significant crop damage, particularly to fruits.

- Dr. K. J. David emphasized that *Tephritidae* not only infest fruits and leaves but also target shoots, such as with bamboo shoot flies. Additionally, some species within this family also attack weeds.
- Dr. David emphasized the importance of taxonomic and phylogenetic studies to address identification challenges and recommended sustainable pest management strategies, including male annihilation techniques and improved focus on natural parasitoids.

3. Mitigating threats from emerging insect pests in Bangladesh

-Dr. Nirmal Kumar Dutta

Dr. Nirmal Kumar Dutta, Chief Scientific Officer & Head, Entomology Division, Bangladesh Agricultural Research Institute (BARI), Gazipur 1701, Bangladesh, set forth that Bangladesh's rich biodiversity makes it highly vulnerable to invasive pest species, especially with the liberalization of global trade. Emerging pests like the fall armyworm (FAW), rugose spiraling whitefly, and bagworms have become major agricultural threats in recent years.

Dr. N. K. Dutta stressed that the indiscriminate use of chemical insecticides has worsened pest problems, leading to resistance development and environmental harm. However, biopesticides have emerged as a sustainable alternative, with over 109 brands now available in Bangladesh. The use of natural enemies like parasitoids and predators, combined with biopesticide-based technologies, has reduced chemical pesticide usage by 11.5% in 12 years. This progress reflects the country's commitment to adopting eco-friendly pest management practices.

Furthermore, challenges such as lack of awareness, inaccessibility of resources, and inadequate implementation of policies need to be addressed. Collaborative efforts among scientists and stricter enforcement of national and regional strategies are essential. Continued research and development, supported by governmental initiatives, will further strengthen Bangladesh's resilience against invasive pest threats.

4. Invasion of *Thrips parvispinus* in chilli ecosystem of Andhra Pradesh and its management.

- Dr. K. Sireesha

Dr. K. Sireesha, Principal Scientist (Ento.), Horticultural Research Station, Lam, Dr. Y.S.R. Horticultural University, underscored the importance of importance of destructive pest black thrips on chilli ecosystem of Andhra Pradesh and its management practices.

- She highlighted the pest's polyphagous nature, adaptability to diverse environments, and rapid reproduction, making it a significant agricultural threat. Originating from the Asian tropics, particularly Thailand, this pest has spread to regions like Southeast Asia, Northern Australia, India, and New Zealand.

- She also stressed on economic impact of thrips is significant, with up to 90% yield loss observed in some chilli-growing areas like Guntur, Palanadu, and Prakasam. Their damage is characterized by upward curling of leaves, browning, and reduced photosynthesis, particularly during rainy seasons.
- Dr. K. Shireesha emphasized the differences between *Scirtothrips dorsalis* and *Thrips parvispinus*.
- Dr. Shireesha suggested that control efforts for *Thrips parvispinus* should focus on the flowering and later stages of the crop, rather than targeting the pest from the beginning of the crop cycle.
- Dr. K. Shireesha elaborated the effective management strategies like Integrated Pest Management (IPM) approaches, combining cultural, biological, and chemical measures to minimize crop damage while ensuring environmental safety.

Recommendations from the Technical Session I:

1. Prioritize research on the bioecology, population dynamics, and ecological adaptations of invasive species like *Thrips parvispinus*, *Silba capsicarum*, and fall armyworm in diverse agroecosystems.
2. Develop and integrate advanced diagnostic tools, including molecular markers and remote sensing, for rapid identification and monitoring of emerging pests.
3. Expand studies on IPM strategies that combine cultural, biological, and chemical controls, focusing on pest-specific approaches like white traps for thrips and male annihilation techniques for fruit flies.
4. Investigate the interaction between host plants and pests, emphasizing breeding or engineering crop varieties resistant to pests and their associated viruses.
5. Promote the use of natural bioagents, such as parasitoids and predators, in combination with eco-friendly interventions like neem cake and reflective mulches.
6. Conduct detailed taxonomic studies of cryptic species and species complexes, such as the *Bactrocera dorsalis* complex, using morphological and molecular techniques.
7. Model pest outbreaks under different climate scenarios to predict and mitigate potential threats.
8. Strengthen collaborations among farmers, researchers, policymakers, and international organizations like CABI to enhance pest surveillance, exchange knowledge, and implement effective management strategies.
9. Facilitate workshops and training programs to raise awareness about pest management among stakeholders.





Concurrent Technical Session II

Theme: Molecular Breeding and Gene Editing Approaches for Biotic Stress

- Chairman** : Dr. Alapati Satyanarayana, Former director of Extension, ANGRAU & Present Executive Director, Sangam Seeds
- Co-Chairperson** : 1) Dr. D. Vijay Ramu, Dean PCF and Dean School of Biotechnology and Pharmaceutical Sciences, VFSTR
2) Dr. B. Kalyan Babu, Principal Scientist (Biotechnology), ICAR-IIOPR, Pedavegi, Andhra Pradesh
- Rapporteurs** : 1) Dr. P. Susmitha, Asst. Professor, AHS, VFSTR
2) Ms. V. Priyanka Raj, Asst. Professor, AHS, VFSTR

During this session, three distinguished lead and one oral presentation delivered valuable insights and research findings to the delegates.

1. Sustainable pulses production through plant health

-Dr. Alapati Satyanarayana

Dr. Alapati Satyanarayana, Former director former director of Extension, ANGRAU, and present executive director, Sangam Seeds, chaired the session and was the lead speaker, emphasizing the importance of sustainable pulses production.

- Discussed the low productivity of pulses due to agronomic, environmental, and socio-economic factors, addressing the stagnation in pulse production and outlining government policies aimed at enhancing output.
- Specific varieties of blackgram, such as LBG-645 and LBG-685, were highlighted, along with the damaging effects of Yellow Mosaic Virus (YMV) and the genetics of resistance to this disease.
- In relation to redgram, he pointed out the threats posed by *Helicoverpa* pod borer and diseases like wilt, advocating for alternative agricultural methods that avoid chemical use.

2. Molecular Breeding and Gene Editing Approaches for Improving Plant Health

-Dr. M. Sujatha

Dr. M. Sujatha, Emeritus Scientist (Plant Breeding) ICAR-IIOR, Hyderabad, presented on the evolution of molecular breeding technologies, discussing various

publications and advancements in molecular marker technologies, including SSRs, SNPs, and Marker-Assisted Selection (MAS).

- Enlisted about new approaches of transgenic crops like CRISPR-Cas9 gene Editing and RNA interference (RNAi), heat- and drought-tolerant traits
- Discussed about gene editing process and its importance
- Gene editing technologies like CRISPR-Cas9 are being used to enhance biotic stress tolerance in rice and major crops by introducing resistance to pathogens, pests, and viruses. This involves editing genes related to immunity or susceptibility, enabling crops to withstand diseases and reduce yield losses.
- Enlightened about current genome editing projects at CGIAR centres for biotic stress.

3. Molecular breeding and Genome editing for plant health management: Special reference to Oil palm (*Elaeis guineensis*)

-Dr. B. Kalyan Babu

Dr. B. Kalyan Babu: Principal Scientist (Biotechnology), ICAR-IIOPR, Pedavegi, Andhra Pradesh, discussed the crossing of Tenera and Pisifera sps in oil palm The crossing of Tenera (a hybrid between Dura and Pisifera species) and Pisifera in oil palm is aimed at improving yield and disease resistance. Tenera's high oil yield and Pisifera's disease resistance are combined to create more productive and resilient varieties.

- Highlighted the integrated genomic approaches like Bulk Segregant Analysis (BSA), Whole-Genome GWAS, and Bioinformatics combine genetic mapping, association studies, and computational tools to identify key loci associated with traits. These methods accelerate crop breeding by enabling precise gene identification and trait improvement. And also followed by validation of population at the farmers level
- Discussed GWAS for yield and oil yield GWAS for yield and oil yield in crops identifies genetic loci associated with these traits by correlating phenotypic data with genetic markers across a population. This helps pinpoint specific genes involved in high yield and oil content, aiding in the development of improved varieties through marker-assisted selection.

4. Genome editing for imparting grey mold resistance in castor (*Ricinus communis L.*)

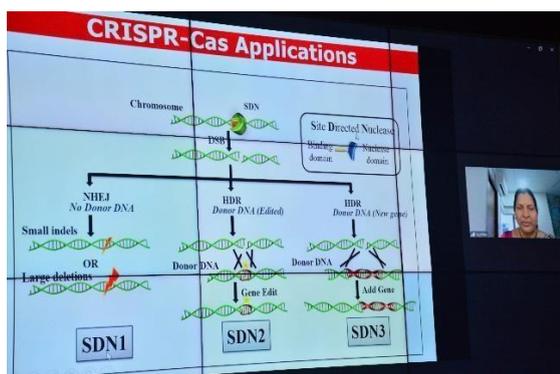
- Dr. B. Usha Kiran

Dr. B. Usha Kiran, Sr. Scientist (Agril. Biotechnology), ICAR-IIOR, Rajendranagar, Hyderabad, discussed the key components for genome editing in castor, include the CRISPR-Cas9 system for precise gene targeting and delivery vectors such as Agrobacterium or ribonucleoprotein complexes for efficient transformation. These tools enable the modification of genes related to traits like oil content and stress resistance.

- Listed approaches for tackling grey mold resistance in castor, like the use of molecular breeding to identify and introduce resistant genes through markers and genetic modification. Additionally, integrated pest management strategies and the development of fungicide-resistant varieties are explored to reduce disease impact.
- Enlightened about CAS 9 efficacy in castor Cas9 efficacy in castor has been demonstrated for precise gene editing, enabling targeted modifications for traits like oil content and stress resistance. The system shows promise in generating transgenic lines with improved agronomic characteristics, enhancing breeding efforts in castor.

Recommendations from the Concurrent Technical Session II:

1. Develop optimized CRISPR-Cas9 protocols for a wide range of crops, including pulses, oil palm, and castor, focusing on resistance to major biotic stresses like fungal diseases, insect pests, and viral pathogens.
2. Explore alternative genome-editing tools such as base editing and prime editing to achieve more precise and efficient genetic modifications.
3. Expand the use of marker-assisted selection (MAS) and genome-wide association studies (GWAS) to identify biotic stress-resistant traits in crops.
4. Establish high-throughput SNP-based CAPS marker systems for early-stage varietal identification and resistance screening.
5. Focus on the genomic analysis of key genes, such as those involved in immune responses and secondary metabolite biosynthesis, to improve tolerance mechanisms.
6. Implement functional validation of candidate genes through RNA interference (RNAi) and transgenic approaches.
7. Crop-Specific Research Initiatives- Develop superior hybrid varieties through advanced molecular breeding, focusing on high oil yield, disease resistance, and dwarfness for better management for oil palm.
8. Promote collaborative research projects among national and international institutes to accelerate the development of sustainable agricultural practices through genome editing.



Concurrent Technical Session III

Theme: Changing pest scenario, Epidemiology, Forecasting & Monitoring in relation to Climate change (Insect pests)

- Chairman** : Dr. Gururaj Katti, Principal Scientist (Entomology) & Head (Crop Protection), ICAR-IIRR, Hyderabad
- Co-Chairperson** : 1) Dr.Srinivas Parimi, Director – Field Development and Technical Partnerships, Provivi Inc., Hyderabad
2) Dr. M. Visalakshi, Principal Scientist (Entomology), AICRP on Biological Control, RARS, Anakapalle
- Rapporteurs** : 1) Dr. T. Naresh, Coordinator-AHS, VFSTR
2) Dr. L. Geethanjali, Asst. Professor, AHS, VFSTR

In this session, three pivotal lead papers and eleven oral presentations were delivered.

1. Novel Technologies in Management of Cotton Plant Health

- Dr. N.V.V.S. Durga Prasad

Dr. N.V.V.S. Durga Prasad, Associate Director of Research RARS, Lam, Guntur, emphasized the initial increase in cotton production through Bt technology but noted the challenges faced over the past nine years due to insect resistance.

- Outlined key constraints like sucking pests, bollworms, and leaf curl virus, and introduced novel technologies such as AI- powered pheromone traps, specialized lure application technology, and genetically engineered cotton hybrids expressing pest-resistant genes.
- Policy recommendations suggested prioritizing hybrids with pest tolerance based on performance in different conditions.

2. Fall Army Worm: An Overview

-Dr. J. C. Sekhar

Dr. J. C. Sekhar, Principal Scientist, ICAR-Indian Institute of Maize Research, Hyderabad, enlightens the importance of Fall armyworm (FAW) as emerging major pest in India. In 2018, it was first reported in Kerala. It is known for attacking crops like maize, causing significant economic losses. Screening resistant germplasms has been a priority in combating FAW, with institutions like CIMMYT leading efforts in testing over 6,000 maize varieties.

- Studies on biosynthesis of secondary metabolites and phytohormone alterations in maize have provided insights into natural resistance mechanisms. Additionally, RNA interference (RNAi) technologies and semi chemicals such as pheromones have enhanced the ability to monitor and manage FAW populations effectively.
- Dr. J. C. Shekhar highlighted the importance of biological control methods, which play a significant role in FAW management. Conservation agriculture, intercropping, and maintaining parasitoid diversity have shown potential in suppressing FAW outbreaks. Egg parasitoids, larval predators, and encapsulated Bt formulations are among the effective biopesticides used against FAW.

- Furthermore, Dr. J.C. Shekar also emphasized the research a priority continues to evolve, focusing on genomic analyses to identify significant single-nucleotide polymorphisms (SNPs) linked to FAW resistance.

3. Integration of Pheromones into pest management practices of Asia – experiences from Indonesia

-Dr. Srinivas Parimi

Dr. Srinivas Parimi, Director–Field Development and Technical Partnerships, Provivi Inc., Hyderabad, highlighted the importance of pheromones in IPM. QUEM SOMOS has developed 15 pheromones whereas Provivi manufactures pheromones with proprietary biocatalyst and low cost raw materials to reduce the steps needed to synthesize pheromones with higher production for which Green chemistry award was given.

- Dr. Parimi listed Proviiv products like:
 1. Pheron RSB against rice yellow stem borer (50% insecticide reduction and 74% yield)
 2. Provivi FAW against FAW (30% insecticide reduction and 72% yield win rate was achieved)
 3. Pherogen Spray FAW–against FAW (40% insecticide reduction and 82% yield win rate was achieved)
- He also informed about some collaborations of Godrej Agrovet with Provivi for achieving sustainable rice and maize production. Syngenta biologicals and Provivi were developing products against devastating pests in key crops across Asia.

Oral presentations included Dr. M. Sesa Maha Lakshmi, Professor (Entomology), Technical Officer (Polytechnics), ANGRAU, Lam, Guntur, discussed solar light traps for monitoring insect pests, emphasizing the use of IoT tools and the effectiveness of light traps against pink bollworms.

Dr. M. Sampathkumar, Senior Scientist (Agrl. Entomology) Division of Germplasm Collection and Characterization, ICAR- NBAIR, Bangalore focused on the occurrence of invasive insect pests in horticultural crops, linking their emergence to globalization and free trade. He specifically addressed the mango soft scale and apple leaf blotch miner, recommending biological control measures and highlighting the role of pest alerts in managing these threats.

Dr. G. Shali Raju, Scientist (Entomology), Krishi Vigyan Kendra, Venkataramannagudem, presented research on the population dynamics of the mango fruit fly, correlating infestation levels with weather parameters, while Dr. P. Damodar Reddy Asst. Professor, Department of Entomology, JC Diwakar Reddy Agricultural College, examined the influence of seasonal weather on the Rugose Spiralling Whitefly in guava.

Research scholars also contributed valuable findings follow.

- The effects of plant essential oil compounds on *Spodoptera litura* proteins, revealing the potential of phytochemicals as contact toxicants and repellents.
- Characterization of Bacterial Gut Symbionts of Diamondback Moth, *Plutella xylostella* focused on the bacterial gut symbionts of the Diamondback Moth, proposing future research directions aimed at symbiont-based pest control strategies and optimizing pest diets.

Recommendations from the Concurrent Technical Session III:

1. Enhance the development of Genetically Engineered crops with tolerance to multiple pests, including sucking pests, bollworms, and emerging invasive species like the Fall Armyworm.
2. Look forward to new area of research, particularly on microbiome/microbiota, a key area to be explore further.
3. Employ genomic tools such as SNP analysis and RNA interference (RNAi) technologies to accelerate the identification of resistant crop germplasm.
4. Develop AI-powered, IoT-integrated pest monitoring tools like pheromone traps equipped with cameras, acoustic devices, and solar light traps.
5. Establish databases and models for pest population dynamics and correlations with weather parameters to forecast outbreaks effectively.
6. Enhance biological control efforts by conserving natural enemies (e.g., parasitoids and predators) and promoting conservation agriculture practices.
7. Strengthen quarantine measures and pest alert systems to minimize the entry and spread of invasive pests like the mango soft scale and apple leaf blotch miner across agro-ecological zones.
8. Conduct region-specific studies on invasive pests to develop targeted management strategies, including chemical and biological controls.
9. Test crop and pest resilience under simulated climate change conditions to anticipate and mitigate future challenges.



Concurrent Technical Session IV

Theme: Changing pest scenario, Epidemiology, Forecasting & Monitoring in relation to Climate change (Plant Diseases)

- Chairman** : Dr. Paul WJ Taylor, Technical Coordinator, APAARI
- Co-Chairperson** : 1) Dr. P. Kishore Varma, Principal Scientist (Plant Pathology), RARS, Lam
- Rapporteurs** : 1) Dr. M.L.N.Nandini, Asst. Professor, AHS, VFSTR
2) Mrs. T. Umamaheswari, Asst. Professor, AHS, VFSTR

During this session, one lead paper and five oral presentations were delivered.

1. Diseases in rice and their management – current scenario and future path for a sustainable production

- Dr. C. Kannan

Dr. C. Kannan, Principal Scientist (Plant Pathology) at ICAR-IIRR, Hyderabad, delivered an insightful presentation on the current state of rice production and its challenges, focusing on the management of false smut disease in rice.

- Emphasizing integrated disease management, he outlined strategies such as cultural practices, the use of disease-resistant varieties, biological control agents (BCAs), and chemical control methods.
- He also highlighted advancements in microbial bioformulation technology as an eco-friendly alternative to agrochemicals. The isolation of microbial secondary metabolites from strains of *Trichoderma* led to the commercialization of compounds like masovia lactone and six pentyl-2H-pyrone.
- The need for capacity-building initiatives among farmers was also highlighted.

Oral presentations included Dr. B.K.M. Lakshmi, Principal Scientist (Plant Pathology) & Head, Dr. YSRHU-Mango Research Station, Nuzvid, AP, discussed the emerging threat of sooty mold to mango production in Coastal Andhra Pradesh. She presented findings on major mango diseases, particularly focusing on sooty mold caused by the fungus *Capnodium sp.*, which thrives on sugary secretions from sucking pests.

Dr. S.V. Ramana Rao, Principal Scientist (Agri. Econ) at ICAR-Indian Institute of Oilseeds Research, Hyderabad, presented on the role of partnerships in fostering plant health through bio-inoculants, stressing the challenge of producing sufficient food to meet global demands. The presentation highlighted the importance of partnerships with institutions for technology transfer and training, as well as engaging Farmer Producer Companies (FPCs) to ensure efficient distribution of bio-inoculants.

Dr. M. Mutyala Naidu, Principal Scientist (Hort.) & Head, Dr. YSRHU Horticultural Research Station, Mahanandi, Nandyal (Dt.), A.P., focused on viral diseases in banana production, discussing significant viruses like banana bract mosaic virus and banana bunchy top virus. Highlighted the susceptibility of certain banana varieties and proposed management strategies such as producing virus-free planting materials and implementing quarantine measures.

Dr. Nandappa Chorgasti, Assistant Professor at Malla Reddy University, Hyderabad, shared his findings from a survey on chilli diseases in Telangana, particularly anthracnose,

which poses a severe threat to chilli cultivation. He collected and identified various isolates, confirming the presence of pathogenic *Colletotrichum* species.

Lastly, Ms. Niveditha Pollumahanti, Project Associate II at the DBT One Health Project, NABL Accredited Food Microbiology Laboratory, National Meat Research Institute, Hyderabad, addressed the screening and isolation of *Listeria monocytogenes* from organic and non-organic leafy vegetables in Hyderabad. She found a higher contamination risk in non-organic vegetables and assessed the virulence of the pathogen, emphasizing the need for stringent quality control and regular monitoring to enhance food safety.

Recommendations from the Concurrent Technical Session IV:

1. Promote IDM practices that combine cultural, biological, and chemical approaches to minimize pest and disease impact while reducing environmental harm.
2. Scale up the use of bio-control agents (BCAs) and microbial formulations as eco-friendly alternatives to chemical pesticides.
3. Focus on interdisciplinary research to develop advanced tools for disease forecasting and monitoring under changing climate conditions.
4. Encourage studies on the genetic diversity and virulence of pathogens to better understand disease dynamics.
5. Strengthen disease surveillance and forecasting systems to anticipate outbreaks in the context of climate change.
6. Develop and disseminate region-specific management practices that address emerging diseases in key crops such as rice, mango, banana, and chillies.
7. Encourage the cultivation of climate-resilient and disease-resistant crop varieties.
8. Foster public-private partnerships (PPP) for scaling up bio-inoculant production and distribution.
9. Implement the "4P Approach" (Promote, Partner, Participate, Progress) to engage youth in agriculture and plant health initiatives.





Concurrent Technical Session V

Theme: Sanitary, Phytosanitary and Quarantine Regulations

- Chairman** : Dr. Baldissera Giovani, Coordinator, EUPHRESKO III
- Co-Chairperson** : 1) Dr. S. V. S. Gopala Swamy, Principal Scientist (Entomology), RARS, Lam
2) Dr. Harikishan Sudini, Principal Scientist and Head- Science Quality and Strategy, ICRISAT, Hyderabad
- Rapporteurs** : 1) Dr. Vishnupandi Senthil Kumar, Asst. Professor, AHS, VFSTR
2) Dr. G. Siva Nagaraju, Asst. Professor, AHS, VFSTR

During this session, two pivotal lead papers were delivered.

1. Mycotoxins as Global Risks for Food and Nutrition Security: Need for One Health, One world Approach

-Dr. M. K. Naik

Dr. M. K. Naik, Former Vice-Chancellor of KSNAHU, Shivamogga, began by discussing the significant issue of aflatoxin contamination in chillies within Telangana State, shedding light on the quantitative and qualitative estimation of phytotoxins.

- Highlighted the production of various aflatoxins, including Cap17, caf 23, caf 43, and caf 48, using ELISA techniques.
- Presented findings from analyses conducted in Gulbarga, Beilary, and Raichur districts, along with results from farm trials aimed at improving groundnut management through Good Agricultural Practices (GAP).
- Dr. Naik provided recommendations from a 'One Health' roadmap, emphasizing the need for comprehensive strategies that integrate food security, nutrition, and health.

2. A Holistic approach to Aflatoxin management in Groundnut is Key for safe and fair trade

-Dr. Harikishan Sudini

Dr. Harikishan Sudini, Principal Scientist and Head of Science Quality and Strategy at ICRISAT, Hyderabad, initiated his presentation by underscoring the necessity of a holistic approach to aflatoxin management in groundnuts to ensure food safety. Elaborated on mycotoxins and aflatoxins, sharing alarming reports of incidents such as the death of ten elephants in an Indian national park and further cases of elephants succumbing after consuming infected kodo millet.

- Focused on the secondary metabolites produced by various strains of *Aspergillus*, specifically AFB1, AFB2, and AFG2, detailing their toxicological implications and presenting a range of approaches to address aflatoxin contamination, highlighting interventions aimed at reducing the risks associated with aflatoxins in food systems.
- Dr. Sudini concluded his presentation by emphasizing the need for research to focus on the developmental biology, biochemistry, and gene expression of the peanut seed coat to enhance understanding and utilization of its natural resistance mechanisms against *A. flavus* and aflatoxin contamination.

Recommendations from the Concurrent Technical Session V:

1. Conduct comprehensive studies on the occurrence, distribution, and impact of mycotoxins, such as aflatoxins, in diverse crops and regions, emphasizing contamination hotspots like Telangana, Gulbarga, Bellary, and Raichur.
2. Develop and refine **quantitative and qualitative diagnostic tools**, such as ELISA and advanced molecular techniques, to improve the detection and monitoring of aflatoxin contamination.
3. Promote the adoption of Good Agricultural Practices (GAP) and crop-specific interventions to mitigate mycotoxin risks at the farm level.
4. Advance research that integrates plant health, soil health, and sustainable farming practices as part of a resilient food health system under the ‘One Health’ framework.
5. Investigate the role of seed coat biology in resisting fungal infections, focusing on biochemical pathways, such as the inhibitory effects of ferulic acid and lignin content, as demonstrated in peanut varieties like 55-437.
6. Train farmers in the use of mycotoxin detection methods, linking them to platforms like **www.nurture.com** for quality testing and market access.
7. Strengthen sanitary and phytosanitary (SPS) regulations with a focus on regional and global compliance, ensuring safe and fair trade of agricultural products.
8. Foster collaboration between research institutions, policymakers, and industry to address aflatoxin management comprehensively.



Concurrent Technical Session VI

Theme: Artificial Intelligence and IoT for Plant Health Management

- Chairman** : Dr. M. K. Naik, Former Vice Chancellor, KSNAHU, Shivamogga
- Co-Chairperson** : 1) Dr. Sunil Kumar, Principal Scientist, Utkar
2) Ms. Madhu Manjari, Agri Digital Tools Coordinator- South Asia, CABI International
- Rapporteurs** : 1) Dr. Mahesh Vinayak Hadole, Coordinator, AE, VFSTR
2) Dr. Md. Anwar Ali, Asst. Professor, AHS, VFSTR

During this session, two pivotal lead papers and one oral presentation was delivered.

1. Human centric Design approaches for sustainability and scalability of farmers' advisory through CABI PlantwisePlus digital Advisory tools

- Ms. Madhu Manjari

Ms. Manjari, Agri Digital Tools Coordinator- South Asia, CABI International, highlighted CABI's establishment of plant clinics in over 27 countries, showcasing their commitment to delivering science-based agricultural knowledge to farmers.

- She pointed out the key features of CABI tools, such as gender inclusivity, free access, multilingual support, and user-friendly interfaces in web and mobile applications, designed to promote sustainable agricultural practices. Furthermore, CABI offers digital learning courses in nine languages, comprehensive plant health information, and crop protection support, all grounded in a human-centric design approach that addresses stakeholders' challenges.
- The chair suggested expanding this focus to include soil and crop-centric considerations, along with addressing the literacy rates among the targeted farming communities, as digitization requires a certain level of literacy.
- The presentation concluded with an overview of the human-centric design processes, tool validation, challenges faced, and a SWOT analysis of the initiatives.

2. Drone based package of practices for wet direct seeded rice – Innovation and challenges

- Dr. N. Ramagopalavarma

Dr. N. Ramagopalavarma, Principal Scientist (Entomology), Institute of Rice Research, PJTSAU, Hyderabad, introduced drone technology's transformative potential in Indian agriculture, sharing field experimental results and discussing the development of standard operating protocols for seven crops, including groundnut, cotton, and rice.

- Dr. Varma elaborated on pest detection models and the role of AI and machine learning in developing specific application algorithms. He highlighted a NABARD project utilizing drones for direct seeding in wet-seeded rice, noting the extensive data generated to optimize drone operations.
- The speaker compared the efficacy of drone spraying with conventional methods, asserting that drones are more economical and efficient.
- The chairman noted the importance of considering buffer zones during spray applications to protect water bodies and amphibian species.

Oral presentation includes "Drone-based Granular Spreader: SOPs for Application of Granular Insecticides in Rice." She detailed her experimental results and parameter

optimization for a disc-type UAV-based spreading device, conducting a comparative study with conventional methods, underscoring the advantages of drone technology in agricultural practices. The session concluded with a robust discussion, allowing participants to exchange ideas and insights.

Recommendations from the Concurrent Technical Session VI:

1. Expand research to incorporate human-centric design approaches alongside crop- and soil-centric strategies. Tools and technologies should address stakeholder needs while also considering crop health, soil conditions, and ecological sustainability.
2. Conduct literacy assessments within farming communities to design digital solutions that are inclusive, user-friendly, and accessible, even in low-literacy regions.
3. Conduct long-term validation studies to ensure the reliability and scalability of digital advisory tools across diverse agro-climatic regions.
4. Research and standardize drone-based Standard Operating Procedures (SOPs) for granular insecticide spreading and crop protection applications, ensuring optimal effectiveness and minimal environmental impact.
5. Enhance AI and machine learning models for pest detection, crop health assessment, and predictive analytics to provide precise, real-time solutions for farmers.
6. Develop datasets that capture crop-specific pest behaviors, disease patterns, and climatic variables to improve AI algorithm accuracy.
7. Conduct awareness campaigns and workshops on the use of IoT devices and AI tools to encourage widespread adoption and improve digital literacy among farming communities.
8. Encourage cross-border research on pest and disease control, particularly for invasive species that impact multiple regions.
9. Develop a SWOT-based evaluation framework to assess the scalability and sustainability of AI and IoT tools, ensuring they align with regional needs and challenges.
10. Implement robust monitoring mechanisms to measure the real-world impact of digital tools and drone technologies on crop yield, pest management, and environmental health.



Day 2: 18th December 2024

Keynote and Lead Papers Presentations

- Chairman** : Dr. K.S. Varaprasad
Adviser, Biosecurity and Bioresources
- Co-Chairperson** : 1) Dr. Gururaj Katti, Principal Scientist (Entomology) & Head (Crop Protection), ICAR-IIRR, Hyderabad
2) Ms. Madhu Manjari, Agri Digital Tools Coordinator- South Asia, CABI International
- Rapporteurs** : 1) Dr. Chandra Surya Rao M, Asst. Professor, AHS, VFSTR
2) Dr. T. Prabhakar Rao, Asst. Professor, AE, VFSTR

A total of three keynote and one lead papers were delivered during this session.

1. Policy Dimensions of SPS compliances for Agricultural Trade Facilitation: Bangladesh as Case study

– Dr. K. S. Varaprasad

Dr. K.S. Vara Prasad, Project Manager (APAARI-EUPHRESCO III & USDA-SPS) & Former Director, ICAR- NBPGR, Bengaluru, keynote presentation provided an in-depth examination of strategic interventions to address the challenges of Sanitary and Phytosanitary (SPS) compliance in Bangladesh, emphasizing the vital role of the Asia- Pacific Association of Agricultural Research Institutions (APAARI) and its partners in enhancing capacity development and regulatory alignment to facilitate agricultural trade.

- Key challenges identified included export denials due to excessive pesticide residues, insufficient quarantine infrastructure, and limited stakeholder awareness of SPS protocols.
- Dr. Prasad proposed targeted training modules, public-private partnerships, and modernization of diagnostic and quarantine facilities as practical solutions. He highlighted notable achievements, such as advancements in quarantine inspection frameworks and a marked decrease in biopesticide residues.
- The presentation concluded with recommendations to establish a national Maximum Residue Limit (MRL) framework and expand the diagnostic laboratory network to support a resilient agricultural export system.

Following this, Dr. Sarath Babu queried the insufficient emphasize on capacity building in Bangladesh, to which Dr. Ravi Khetarpal responded that the brief tenure of governmental officers hinders effective communication and that systemic corruption has led to a lack of financial resources for capacity-building initiatives.

2. Challenges for Mitigating Risks of Incursion by Exotic Plant Pathogens

- Dr. Paul WJ Taylor

Professor Dr. Paul Taylor, Technical Coordinator, APAARI, then discussed the pressing plant health challenges in South and Southeast Asia, focusing on diagnostics, disease management, and sustainable practices.

- He emphasized the importance of advanced molecular diagnostic methodologies, such as PCR and LAMP, for bolstering biosecurity.

- Dr. Taylor presented case studies on significant phytopathological threats, including anthracnose and fusarium wilt, advocating for regional cooperation and capacity-building efforts, such as masterclasses and breeding disease-resistant crop varieties.
- A recommendation was made for EUPHRESKO to increase its engagement in the Asian region to effectively tackle these challenges through collaborative efforts.

3. Plant Health in Asia: The IPPC perspective

- Ms. Sarah Brunel

Ms. Sarah Brunel, Implementation & Facilitation Lead, IPPC Secretariat, FAO, Italy, highlighted the critical role of plant health within the One Health framework, addressing the rapid spread of invasive pests due to globalization and climate change, which pose threats to ecosystems and public health.

She discussed the IPPC e-Phyto Solution, which has facilitated over 7 million secure exchanges globally, enhancing efficiency in agricultural trade. Other transformative initiatives, such as the Phytosanitary Capacity Evaluation framework, were also spotlighted.

4. Crop biosecurity against plant viral diseases in Asia: Challenges

- Dr. V. Celia Chalam

Dr. V. Celia Chalam, Principal Scientist & Head, Division of Plant Quarantine, ICAR-National Bureau of Plant Genetic Resources, Pusa Campus, New Delhi, addressed crop biosecurity challenges from plant viral diseases, stressing the need for robust quarantine measures and standardized procedures for germplasm exchange. She highlighted the significant operations of ICAR-NBPGR's centres, which have processed over 700,000 germplasms, reinforcing the necessity of stringent quarantine systems.

1. Dr. Sashi B. Sharma reinforced the importance of capacity enhancement through CABI's initiatives and the need for region-specific SPS measures.
2. He urged collaborative efforts that align regional priorities with international standards, and he advocated for a comprehensive biosecurity bill to protect agricultural systems from invasive pests.

Recommendations from the keynote presentation:

1. Developing a National Maximum Residue Limit (MRL) Framework- Research should focus on creating a robust MRL system for pesticide residues tailored to local crop and trade requirements.
2. Design targeted training modules for stakeholders, emphasizing long-term capacity building and knowledge retention among government officers.
3. Enhance partnerships among institutions such as APAARI, EUPHRESKO, and CABI to address transboundary plant health challenges effectively.
4. Expand research into PCR and LAMP methodologies to improve early detection and management of phytopathological threats.

5. Enhance the collection and integration of plant health data within the One Health framework, ensuring timely detection and response to emerging threats.
6. Conduct research to establish SOPs for drone-based pest control and granular insecticide applications, focusing on minimizing environmental impact.
7. Advocate for a national biosecurity policy that aligns with global standards and addresses the increasing threats of invasive pests and diseases.
8. Digital Certification Systems: Expand the use of e-Phyto solutions for efficient, secure, and traceable germplasm exchanges.
9. Leverage funding opportunities from EUPHRESKO to address regional priorities, especially in diagnostics, pest management, and sustainable trade practices.



Panel Discussion of Farmers

Moderator : Sri Y. Venkateshwar Rao, Chairman, Rytunestam Foundation

Coordinator : Dr. T. Ramesh Babu, Dean SAFT, VFSTR

Panelist

1. Sri V. Sambireddy, Kollipara
2. Sri U. Chakrapani, Eluru
3. Sri Sharath Babu
4. Sri K. Ramakrishna
5. Sri Harikrishna

Rapporteur Dr. Harisha N, Assistant Professor, AHS, VFSTR.

Dr. Y. Varaprasad, Assistant Director, AHS, VFSTR.

Sri Y. Venkateshwar Rao, addressed the gathering, highlighting the detrimental effects of excessive agrochemical usage on soil and water health. He acknowledged the initial decline in crop yields when transitioning to organic manures, bio-pesticides, and bio- agents but noted that yields stabilize over time. He urged farmers to share their experiences and emphasized the importance of farmer-led extension activities for Technology Transfer (ToT). He also suggested implementing 30 crop kit trials at the farmer level.

Dr. T. Ramesh Babu, Dean, SAFT, VFSTR, welcomed the participants and elaborated on the theme of plant health. He discussed the mission of APAARI and EUPHRESCO III, stressing the importance of "Research Priorities and Partnerships" for improving the farming community's well-being. Dr. Babu emphasized Public-Private-Farmer partnership models and ToT approaches such as Lab-to-Land, Land-to-Lab, and Farmer- to-Farmer initiatives. He also committed to organizing the *Polam Badi Programme* with the partnership of Bio Factor Pvt. Ltd and farmers under this partnership model to enhance knowledge-sharing among farmers and between farmers and the industry.

Sri Boda Laxminarayana underscored the role of bio-fertilizers and bio-control agents in promoting plant health and suggested measures to improve soil organic carbon.

Sri Hari Krishna, Panelist, advocated for Integrated Farming Systems with livestock to enhance soil microorganisms. He encouraged the use of organic fertilizers, green manures, and bio-control agents, emphasizing their role in reducing crop maladies and improving soil organic carbon. He also urged farmers to conduct pilot studies to explore the feasibility of organic farming.

Sridhar Kollipara recommended utilizing bio-inoculants, fish meal, Panchagavya, and calotropis leaf extract to preserve soil flora and fauna.

Hon'ble Lavu Rathaiah, Chairman, VFSTR, stressed the importance of ensuring viable incomes for organic commodities through premium pricing. He encouraged collaborative research on natural farming and the adoption of farm mechanization, IoT, Artificial Intelligence, and Machine Learning for effective farm management. He also emphasized

the need for practical exposure to farm-level innovations.

Sri U. Chakrapani, Panelist, advocated for intercropping systems using organic fertilizers in horticultural crops like turmeric, oil palm, coconut, and guava. He urged farmers to adopt IoT and sensor-based technologies and encouraged scientists to conduct pilot studies for identifying feasible solutions.

Sri Sambhi Reddy, Panelist, shared the success story of the Shrestha FPO in Kollipara. He raised awareness about Good Agricultural Practices (GAP), value addition, branding, and the export potential of organic commodities.

Sri Katta Ramakrishna, an ICAR awardee, emphasized the benefits of crop rotation with pulse crops in enhancing soil fertility and health. He advocated the use of Farm Yard Manure (FYM) in combination with bio-fertilizers to reduce issues like dry root rot in Bengal gram.

Sri Saarath Babu expressed optimism about the conference's potential to drive positive changes in soil and plant health practices.

Dr. Ravi Ketharpal, Executive Director, APAARI, congratulated the farmers on their active participation. He emphasized regional and national partnerships with agricultural institutions, innovative technology adoption, and linking farmers to global markets through triangular cooperation among universities, industries, and farmers.

Dr. Baldissera Giovsani, EUPHRESCO III Coordinator, highlighted the interconnectedness of soil, plant, animal, and human health. He lauded the partnership approach for enhancing global productivity and commended the farmers for their active engagement.

Sri Venkata Rao Kadapa, Bio Factor suggested solutions for organic carbon improvement through their products in the Chilli Crop. He promised to supply organic bio factor products on a free basis to conduct field testing.

The panel discussion concluded with the felicitation of panel members and farmer participants by the Dean of SAFT, along with the AHS fraternity, in recognition of their valuable contributions.

All the farmer participants expressed happiness with the resolutions of panel discussion

Recommendations from the farmer's panel discussion:

1. Transition to organic manures, bio-pesticides, and bio-control agents to improve soil health, water quality, and crop resilience over time. Expect an initial decline in yields, but anticipate stabilization with proper management.
2. Adopt IFS to improve soil microorganism diversity, enhance soil health, and provide multiple income streams.
3. Conduct small-scale trials to evaluate the feasibility of organic farming and identify effective practices for broader implementation.
4. Explore Artificial Intelligence and Machine Learning for farm management, yield prediction, and pest control.

5. Share experiences and practices through Farmer-to-Farmer (F2F) initiatives, creating a community-driven knowledge pool.
6. Engage in field-level programs to bridge gaps between research, industry, and farmer practices.
7. Collaborate with companies like Bio Factor for free field testing of organic products to improve organic carbon levels in chilli farming.
8. Include pulses in crop rotations to fix nitrogen, enhance soil fertility, and reduce pest and disease incidences.
9. Engage with universities, industries, and farmer groups for collaborative research, funding opportunities, and innovative technology transfer.
10. Participate in research initiatives on natural farming practices to improve productivity and sustainability.
11. Conduct 30-crop kit trials at the farmer level to evaluate new technologies and practices for wider adoption.



Panel Discussion of Industries

Coordinator : Dr. B. Sarath Babu, President, Plant Protection Association of India (PPAI)

Panelist

1. Dr. K. S. Thyagarajan
2. Shri. L. N. Reddy
3. Mr. Sushanth Manasa
4. Shri. Venkat Rao

Rapporteur Dr. S. Karthikeyan, Coordinator, FT, VFSTR.

Dr. Syed Irshaan, Assistant Professor , FT, VFSTR.

Dr. B. Sarath Babu, President of PPAI, aptly began the session by emphasizing the importance of partnerships among farmers, industrialists, public-private universities, and research centers. This sentiment set the tone for a collaborative and solution-oriented dialogue.

Key Insights from the Panel:

- **Dr. K. S. Thyagarajan** brought attention to India's 39th rank in the 2024 Global Innovation Index and emphasized sustainable and safer formulations in pesticides. He highlighted emerging areas like bioherbicides, biopesticides, and the innovative use of natural substances such as essential oils, plant extracts, and even spider and bee venom for pest control.
- **Shri. L. N. Reddy** focused on the critical balance between biological and chemical fertilizers, stressing their role in improving soil health and plant productivity. The concept of **metabiome**, introduced by Dr. Sukumar, was particularly noteworthy as a sustainable microbial solution addressing climate change and drought mitigation. The connection between global fertilizer dynamics and plant protection chemicals was thoughtfully articulated.
- **Mr. Sushanth Manasa** showcased Farm Sathi's innovative electric farm robots designed for efficient farming practices. By reducing operation costs, eliminating the need for skilled labor, and enhancing productivity, these robots represent a step forward in empowering farmers to double their income.
- **Shri. Venkat Rao** shed light on the need for short-duration crops and uniform harvesting methods, addressing photosensitivity and operational efficiency in farming practices.

Recommendations from the industrialists' panel discussion:

1. Prioritize innovations in bio-solutions that align with environmental safety and regulatory standards.
2. Scale up the development and deployment of electric farm robots, like those from Farm Sathi, to reduce operational costs, eliminate dependence on skilled labor, and boost productivity.

3. Research further automation technologies tailored to Indian agricultural needs, considering smallholder farms and diverse crop systems.
4. Invest in R&D for nano-fertilizers and water-soluble fertilizers that optimize nutrient delivery, reduce wastage, and mitigate environmental impact.
5. Collaborate with research institutions to align agricultural practices and outputs with WTO agreements to enhance global market opportunities for Indian products.
6. Partner with private universities and industry leaders to develop a comprehensive data-generation bank that informs plant protection advisories and policy frameworks.
7. Design industry-backed pilot programs to test and demonstrate new technologies and sustainable solutions at the farm level.
8. Develop customized nutrient plans using soil health data and precision agriculture tools.
9. Encourage value addition through processing, branding, and export-oriented production.



Recommendations of ICPHA 2024

1. **Advocate for the One Health Approach to manage aflatoxin contamination and pesticide residues, linking plant health to broader environmental, animal, and human health systems.**

APAARI's role in policy advocacy, regional collaboration, and promoting sustainable agriculture makes it an ideal organization to coordinate efforts to integrate agricultural practices with human, animal, and environmental health systems.

*APAARI promote methods like crop rotation, timely harvesting and pest control. Conducts training on proper drying, sorting and storage to prevent mold growth. It promotes the use of non toxigenic strains of *Aspergillus* to outcompete the toxigenic ones in the field.*

2. **Establish frameworks similar to EUPHRESKO III in Asia to prioritize regional research needs, address pest and pathogen challenges, and foster collaboration across countries.**

APAARI should take the lead in establishing a regional research framework in Asia and SAUs / Universities / Research Institutions will play a critical role in implementing and adapting research to local conditions.

3. **Prioritize research on the bioecology, population dynamics, and ecological adaptations of invasive species like *Thrips parvispinus*, *Silba capsicarum*, and fall armyworm in diverse agroecosystems.**

EUPHRESKO would likely be the most effective choice for coordinating high-level, interdisciplinary research on invasive species in diverse agroecosystems, while APAARI could complement this with regional studies, particularly for the Asia-Pacific area. State Agricultural Universities / Universities / Research Institutions would be crucial for field-based research, but global collaboration would enhance the impact and scope of their work.

APAARI's risk identification tools like GIS mapping, farmers reporting systems can be adapted to track thrips outbreaks. Collection of samples for identifying samples and detecting resistance patterns, Explore biological control options such as introducing predatory insects or entomopathogenic fungi.

4. **Model pest outbreaks under different climate scenarios to predict and mitigate potential threats.**

EUPHRESKO focuses on the coordination of phytosanitary research, which includes plant protection, pest forecasting, and biosecurity research, particularly in the context of climate change and has Strong focus on pest prediction, biosecurity, and phytosanitary research.

5. **Develop optimized CRISPR-Cas9 protocols for a wide range of crops, including pulses, oil palm, and castor, focusing on resistance to major biotic stresses like fungal diseases, insect pests, and viral pathogens.**

APAARI can leverage research networks and collaborations across countries where crops like pulses, oil palm, and castor are of significant agricultural importance. SAUs / Universities / Research Institutions often have strong connections to local farming communities and real-world agricultural challenges, which gives them an edge in testing and applying CRISPR-Cas9 technologies for practical crop improvement.

APAARI prioritizes genes or pathways for editing such as those related to disease resistance, insect deterrence, or toxin neutralization.. It focusses on improving efficiency in gene delivery systems (AG mediated, particle bombardment etc). focusses on research to validate off target effects and gene editing precision under regional conditions.

- 6. Crop-Specific Research Initiatives- Develop superior hybrid varieties through advanced molecular breeding, focusing on high oil yield, disease resistance, and dwarfness for better management for oil palm.**

APAARI stands out as the most suitable organization, given its regional focus on the Asia-Pacific region, where oil palm is a major crop. APAARI's ability to foster collaboration across multiple countries in the region makes it ideal for advancing molecular breeding strategies for oil palm hybrids.

APAARI mobilizes research on Genotyping-By-Sequencing(GBS) and QTL mapping for key traits like:

- A) High mesocarp-to-fruit ratio (High oil content)**
- B) Shorter trunk weight or slow vertical growth (For easy harvesting)**
- C) Resistance to Basal stem rot (Ganoderma)**

- 7. Develop AI-powered, IoT-integrated pest monitoring tools like pheromone traps equipped with cameras, acoustic devices, and solar light traps.**

EUPHRESCO is the best-suited organization for developing AI-powered, IoT-integrated pest monitoring tools. Their advanced focus on phytosanitary research, pest forecasting, and data analytics, combined with their strong international collaboration network, makes them ideal for integrating AI, IoT, and remote sensing technologies into pest management systems. EUPHRESCO's expertise will allow them to design and deploy sophisticated pest monitoring systems across diverse agricultural systems in Europe and beyond.

- 8. Enhance biological control efforts by conserving natural enemies (e.g., parasitoids and predators) and promoting conservation agriculture practices.**

EUPHRESCO's research is centered on sustainable plant protection practices, which include biological control and the promotion of IPM systems that reduce the use of synthetic chemicals. EUPHRESCO supports the development of agroecological approaches, which align well with conservation agriculture practices.

It focusses on enhancing habitat conditions to support existing natural enemies, managing non-crop vegetation (Hedge rows and flowering strips) to provide refuge, nectar and alternative prey

It aligns with sustainable farming by promoting practices like Reduced tillage and soil cover which help to preserve habitat for ground dwelling predators.

Cover cropping can harbor natural enemies during off season

- 9. Promote IDM practices that combine cultural, biological, and chemical approaches to minimize pest and disease impact while reducing environmental harm.**

EUPHRESCO is uniquely positioned to lead the promotion of IDM practices, particularly given its focus on sustainable plant protection. Its strong research base, capacity for collaboration, and expertise in integrated pest management make it an ideal choice for promoting IDM at a broader level

- 10. Strengthen disease surveillance and forecasting systems to anticipate outbreaks in the context of climate change.**

SAUs / Universities / Research Institutions conduct extensive field research, which is essential for validating disease forecasting models in real-world conditions. They can implement pilot disease surveillance programs that integrate local data and climate forecasts.

- 11. Conduct comprehensive studies on the occurrence, distribution, and impact of mycotoxins, such as aflatoxins, in diverse crops and regions, emphasizing contamination hotspots like Telangana, Gulbarga, Bellary, and Raichur.**

SAUs' / Universities / Research Institutions connection with farmers allows them to evaluate the real-world impact of mycotoxins and advise on pre-harvest management strategies to mitigate contamination. They conduct region-specific studies and have the infrastructure to assess aflatoxin contamination in crops grown in these hotspots, including groundnut, maize, and rice.

- 12. Develop and refine quantitative and qualitative diagnostic tools, such as ELISA and advanced molecular techniques, to improve the detection and monitoring of aflatoxin contamination.**

EUPHRESCO, ICRISAT has the capacity to engage in the development of high-throughput molecular techniques, such as qPCR

(quantitative PCR) and CRISPR-based diagnostics, for sensitive and rapid detection of aflatoxins.

- 13. Conduct literacy assessments within farming communities to design digital solutions that are inclusive, user-friendly, and accessible, even in low-literacy regions.**

SAUs / Universities / Research Institutions can design user- friendly digital tools that are specifically tailored to the needs of farmers in their regions, taking into account local literacy levels, language, and cultural factors.

- 14. Research and standardize drone-based Standard Operating Procedures (SOPs) for granular insecticide spreading and crop protection applications, ensuring optimal effectiveness and minimal environmental impact.**

EUPHRESCO is involved in research on precision agriculture, which includes improving the efficiency and effectiveness of pesticide application. Their network could contribute to the development of SOPs that focus on precision pest control and environmental impact reduction.

- 15. Developing a National Maximum Residue Limit (MRL) Framework- Research should focus on creating a robust MRL system for pesticide residues tailored to local crop and trade requirements.**

APAARI is the best to coordinate the development of a National MRL framework for pesticide residues, with SAUs / Universities / Research Institutions focusing on empirical research and local implementation.

- 16. Expand research into PCR and LAMP methodologies to improve early detection and management of phytopathological threats.**

APAARI should take the lead in coordinating regional research on PCR and LAMP methodologies, ensuring that diagnostic tools are adapted to the diverse agricultural ecosystems of the Asia- Pacific region.

- 17. Adopt IFS to improve soil microorganism diversity, enhance soil health, and provide multiple income streams.**

SAUs / Universities / Research Institutions have expertise in crop production, livestock management, and soil science, making them well-equipped to design and implement integrated systems that promote diverse income streams and improve soil health.

- 18. Explore Artificial Intelligence and Machine Learning for farm management, yield prediction, and pest control.**

SAUs / Universities / Research Institutions have in-depth knowledge of local agricultural challenges, making them ideal for developing context-specific AI applications that can improve farm management in specific regions.

19. Scale up the development and deployment of electric farm robots, like those from Farm Sathi, to reduce operational costs, eliminate dependence on skilled labor, and boost productivity.

SAUs / Universities / Research Institutions can engage directly with farmers to understand their needs, allowing them to tailor the development of electric farm robots to the specific challenges of different regions (e.g., smallholder farms, specific crop types, and labor issues).

20. Collaborate with research institutions to align agricultural practices and outputs with WTO agreements to enhance global market opportunities for Indian products.

APAARI is well-placed to work with governments, regulatory bodies, and international organizations to ensure that Indian agricultural practices comply with global standards, including those set by the WTO.

Valedictory session

The conference, organized by the Asia Pacific Association for Agricultural Research Institutes (APAARI) and the European Plant Health Research and Coordination (EPRHRESKO III), was a resounding success, characterised by meaningful discussions, innovative ideas, and valuable partnerships. Below is an elaborate account of the speeches and expressions of gratitude from key speakers during the conference.

Dr. K. S. Varaprasad, Project Manager (USDA-SPS Project) APAARI & Former Director, ICAR-IIOR, Hyderabad, in his address, expressed his heartfelt gratitude to all those involved in organizing the conference. He conveyed his sincere appreciation for the level of the international conference, which exceeded his expectations. Dr. K.S. Varaprasad highlighted the serene campus of Vignan University, emphasizing the vibrant student community and the extensive involvement of all sectors in the Research Academy. He remarked that the active participation from diverse sectors and the constructive deliberations, even when marked by differences of opinion, were essential for the fruitful outcomes that the conference aimed to achieve. His speech was an acknowledgement of the collaborative spirit that made the event a resounding success.

Dr. Paul WJ Taylor, Technical Coordinator, APAARI, conveyed his deepest appreciation, describing the conference as an absolute pleasure. He mentioned how the event provided him with an impressive opportunity to engage in various research works and contribute to discussions that left a positive impact. Dr. Paul WJ Taylor expressed particular admiration for the students who participated and the individuals responsible for organizing the event. He also acknowledged the involvement of stakeholders, such as farmers, who played a critical role in bringing a real-world perspective to the discussions and also shared his experience that the event had successfully bridged the gap between research and practical applications, making it a memorable experience for all attendees.

Dr. Ravi Khetarpal, Executive Director, Asia-Pacific Association of Agricultural Research Institutions (APAARI), Bangkok, in his address, shared his immense gratitude, emphasizing that the event was made possible by the efforts of an individual—a man from Italy residing in France, whose passion for India had brought all the participants together. Dr. Ravi Khetarpal highlighted a key observation from the conference, stressing the importance of partnerships, particularly in the context of the farmers' panel. He proposed that a global coordination program should be established where farmers from around the world could be brought together to share their perspectives and contribute to meaningful projects. Dr. Ravi Khetarpal also underscored the valuable contributions of the private sector, acknowledging how companies with vast knowledge and visionary outlooks could play a pivotal role in fostering innovation and advancing research.

Dr. Baldissera Giovani, Coordinator, European Plant Health Research and Coordination (EUPHRESKO III), began his speech by applauding the conference organizers for successfully hosting such a large-scale event involving multiple stakeholders. He described it as a unique experience and praised the logistics and coordination that made the event run smoothly. Dr. Baldissera shared his profound sense of happiness, stating that he never felt alone during the conference, as there was always a protective and supportive presence around him. He also shared his perspective on the importance of institutionalising future initiatives to ensure the sustainability of the global network. Dr. Baldissera stressed that while passionate individuals may drive initiatives today and tomorrow, only institutionalisation would guarantee the long-term success and forward momentum of global partnerships.

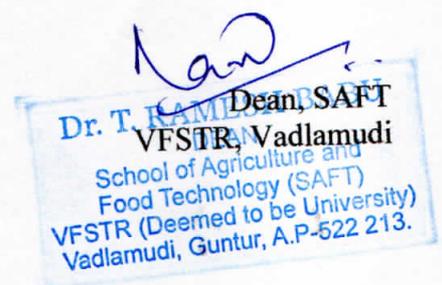
Dr. S.V. Ramana Rao, Principal Scientist (Agri. Economics) ICAR-IIOR, Hyderabad, expressed his belief in the vast potential of Vignan University, particularly in the area of innovation. He praised the university for having a highly intelligent and capable student body, encouraging them not to merely seek jobs but to create opportunities for others. Dr. S.V. Ramana Rao emphasized the importance of topics like plant health and the development of ecosystems, noting that Vignan could lead in these fields by fostering practical, forward-thinking solutions. He conveyed his trust in the institution's ability to take the lead and make a significant impact in plant health and related areas.

Col. Prof. P. Nagabhushan, Hon'ble Vice Chancellor, VFSTR, expressed his deep gratitude towards Dr. Ravi Khetarpal for his positive approach and ability to find optimism in challenging situations. He highlighted how Dr. Ravi Khetarpal's constructive observations had set an example for the delegates to follow. Col. Prof. P. Nagabhushan also expressed his gratitude to Dr. T. Ramesh Babu, Dean, SAFT, VFSTR, for his visionary work in involving farmers in the academic and research spheres. He lauded the concept of public-private-farmer partnerships (PPFP), emphasizing that this approach was key to integrating farmers more deeply into research and policy discussions. This concept was seen as a game-changer in building sustainable, inclusive partnerships for the future.

Dr. B. Sarath Babu, President, Plant Protection Association of India (PPAI), in his speech, reflected on the strong partnership he shares with Dr. Katti and Dr. TVK Singh in the Plant Protection Association of India. He expressed his immense satisfaction with the conference's proceedings, recalling how Dr. Ramesh Babu's work in organizing international conferences on plant health management had made a significant impact. Dr. Babu also acknowledged the pivotal role played by Dr. K.S. Varaprasad as the president of the society, making the event a monumental success. His words celebrated the continued collaboration and the strength of partnerships that had emerged from the conference.

Dr. Pandu. U, Asst. Professor, AHS, VFSTR, on behalf of the Organizing Committee, expressed immense privilege and profound gratitude for the opportunity to host the International Conference on —Plant Health in Asia: Research Priorities and Partnerships. He specifically extended his appreciation to the knowledge partners for their invaluable cooperation in making the event a success. Dr. Pandu also acknowledged the crucial role played by the keynote speakers in providing insightful perspectives on plant health research and the importance of fostering strong partnerships. He took the opportunity to thank all the faculty members, researchers, and volunteers whose tireless efforts ensured the smooth execution of the conference, highlighting their significant contributions to its success.

In conclusion, the International Conference on Plant Health in Asia was not only a platform for presenting cutting-edge research but also a gathering that fostered collaboration, innovation, and partnerships across multiple sectors. The reflections and expressions of gratitude from key figures underscored the importance of continued cooperation between academic institutions, the private sector, farmers, and other stakeholders to address global challenges in plant health. The event marked a significant step forward in building a global network for research, knowledge-sharing, and sustainability in plant health management.





త్రిముఖ వ్యూహం అనుసరించి

పాస్కారు: బంగాదేశ్ లో అమలు పరుస్తున్న త్రిముఖ వ్యూహాన్ని (నాణ్యత, భద్రత, ప్రపంచ మార్కెట్ లో సులభ వాణిజ్యం) మన దేశమూ అనుసరించాల్సిన అవశ్యకత ఉందని ఆపారి ప్రాజెక్ట్ మేనేజర్ కేఎస్ వరప్రసాద్ అన్నారు. వడ్లమాడి విజ్ఞాన యూనివర్సిటీలో బుధవారం ఫ్లాట్ హెల్డ్ ఇన్ ఆసియా రీసెర్చ్ ప్రయారిటీస్ అండ్ పార్టనర్ షిప్స్ అనే అంశంపై నిర్వహించిన అంతర్జాతీయ

సదస్సుకు ఆయన ముఖ్యఅతిథిగా న్నారు. ఈ సందర్భంగా ఆయన దుతూ బంగాదేశ్ లో ఎస్పీఎస్ (సైటోశానిటర్) అనేవి వ్యవసాయ, ఉత్పత్తులు, ఆరోగ్య భద్రతను కాపాడే పర్యావరణ పరిరక్షణకు రూపొందించిన అంతర్జాతీయ వాణిజ్యంతో సంబంధం ఉంటాయని వెల్లడించారు. కార్యక్రమం విజ్ఞాన్ విద్యా సంస్థల అధ్యక్షుడు రత్నయ్య, ఉప కులపతి పి.నాగభూషణ్ రావు రిజిస్ట్రార్ వీఎంఐ రావు పాల్గొన్నారు.



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విజ్ఞాన్ వర్సిటీలో ముగిసిన జాతీయ సదస్సు

ప్రజాశ్రీ-గుంటూరు
బంగాదేశ్ లో అమలు చేస్తున్న త్రిముఖ వ్యూహాన్ని (నాణ్యత, భద్రత, ప్రపంచ మార్కెట్ లో సులభ వాణిజ్యం) మనం కూడా అనుసరించాలని బకార్- బజల్ మేనేజర్ కేఎస్ వరప్రసాద్ అన్నారు. వడ్లమాడి విజ్ఞాన యూనివర్సిటీలో 'ప్లాంట్ హెల్త్ ఇన్ ఆసియా- రీసెర్చ్ ప్రయారిటీస్ అండ్ పార్టనర్ షిప్స్' అనే అంశంపై రిండోఆలపాటు నిర్వహించిన అంతర్జాతీయ సదస్సు బుధవారం ముగిసింది. సదస్సులో వరప్రసాద్ మాట్లాడుతూ బంగాదేశ్ లో ఎస్పీఎస్ (శానిటర్, సైటోశానిటర్) అనేవి వ్యవసాయ ఉత్పత్తులు, ఆహార ఉత్పత్తుల ఆరోగ్యభద్రతను కాపాడటానికి, వర్షావరణ పరిరక్షణకు రూపొందించిన అంతర్జాతీయ వాణిజ్యంతో సంబంధం ఉంటాయని వెల్లడించారు. ఈవిధానాలు అంతర్జాతీయ వాణిజ్యం సంబంధం కలిగి ఉంటాయన్నారు. అనేక రకాల తమ నిర్వహణను ఉత్పత్తులు, ప్రత్యేకం వ్యవసాయ ఉత్పత్తులు, విదేశీ మార్కెట్లకు రవాణా చేసే ముందు ఆహార భద్రత, వ్యాధి నివారణ, మార్కెటింగ్ అనేవిపై తరతర అంశాలపై నియంత్రణలు అమలు చేయడం అవసరంగా పాదించారు. బంగాదేశ్ లో నాణ్యత, భద్రత, ప్రపంచ

మార్కెట్ లో సులభ వాణిజ్యం ప్రోత్సహించేందుకు అమలు చేసే కార్యక్రమాల అవకాశం భద్రత, సైటోశానిటర్, మొక్కల ఆరోగ్యానికి సంబంధించి, వాటి ఉత్పత్తి, పరిమోచించినవని తెలియజేశారు. ఈ విధానాలు రోజురోజుకీ పెంచడమే కాకుండా, వంటల నాణ్యత పెంచడం, పరిశుభ్రత, రైతుల ఆదాయాలను పెంచడం సహాయపడతాయన్నారు. అంతర్జాతీయ వాణిజ్యం ప్రోత్సహించేందుకు అండ్ సైటోశానిటర్ రీసెర్చ్ డాక్టర్ సారా మాట్లాడుతూ మొక్కల ఆరోగ్యం అనేవి వ్యవసాయం సుస్థిరత, పరిరక్షణ, ఆహార భద్రతను సంబంధించిన ఒక కీలక అంశం అని తెలిపారు. మొక్కల వ్యాధులు, కీటకాలు, ఇతర సమస్యలు వ్యవసాయ రంగాన్ని కలిగించగా ప్రమాదకరం అవుతున్నాయి. అందులో మొక్కల వ్యాధులు, కీటక వ్యాధుల వేగంగా వ్యాపిస్తున్నాయి. అంతర్జాతీయ వాణిజ్యం కోసం మొక్కల పరిరక్షణ కీలకమవుతున్నాయి తెలియజేశారు. ఉన్న వ్యూహం మార్పులు, వేడి పెరగడం, ముప్పు వర్షాలు పరిస్థితులు మొక్కల ఆరోగ్యాన్ని ప్రభావితం చేస్తున్నాయి కార్యక్రమంలో సౌత్ ఏసియా సీపీఐఐ బయోటెక్నాలజీ రీసెర్చ్ డాక్టర్ విజ్ఞాన్ కేఎస్ వరప్రసాద్ ప్రసంగించారు. అంతర్జాతీయ పరిశోధన కేంద్రం ద్వారా కేంద్రీకరించిన పరిశోధనలు, గుంటూరు జిల్లాకు చెందిన 1- నిర్వహణను ఉత్పత్తులు, ప్రత్యేకం వ్యవసాయ ఉత్పత్తులు, విదేశీ మార్కెట్లకు రవాణా చేసే ముందు ఆహార భద్రత, వ్యాధి నివారణ, మార్కెటింగ్ అనేవిపై తరతర అంశాలపై నియంత్రణలు అమలు చేయడం అవసరంగా పాదించారు. బంగాదేశ్ లో నాణ్యత, భద్రత, ప్రపంచ



Stress on modern methods in agri-food syst

EXPRESS NEWS SERVICE
@ Vijayawada
A two-day international conference on 'Plant Health in Asia: Research Priorities and Partnerships' was inaugurated on Tuesday at Vignan University, Vadlamudi, Chebrolu Mandal, in collaboration with APARI (Asia-Pacific Association of Agricultural Research Institutes) and the European Plant Health Research and Coordination. T Vijay Kumar, Executive Vice Chairman of Rythu Sadhikara Samstha and Advisor to the Department of Agricul-



ture and Cooperation, addressed the gathering as the chief guest, emphasising the organisation's commitment to the welfare of farmers, agricultural development, and improving livelihoods in the state. Vijay Kumar also announced that the government would provide financial and technical

support, including to farmers, while p ganic farming pra Dr Ravi Khetarp Director of APARI the need for mod in the agri-food syst ularly from produ sumption. He stre portance of using l drones, and digital tect plant health, er disease detection a tervention. Dr Bal ni, Coordinator o Phytosanitary Res dination, discusse collaboration in j research.



ముగిసిన అంతర్జాతీయ సదస్సు

బిశ ప్రతినిధి, గుంటూరు : బంగాదేశ్ లో అమలుపరుస్తున్న త్రిముఖ వ్యూహాన్ని (నాణ్యత, భద్రత, ప్రపంచ మార్కెట్ లో సులభ వాణిజ్యం) మనం కూడా అనుసరించాలని బకార్ - బజల్ మేనేజర్ కేఎస్ వరప్రసాద్ అన్నారు. చెట్లొలు ముందలం వడ్లమాడి విజ్ఞాన్ యూనివర్సిటీలోని స్కూల్ ఆఫ్ అగ్రికల్చర్ అండ్ ఫుడ్ టెక్నాలజీ విభాగంలోని డిపార్ట్ మెంట్ ఆఫ్ అగ్రికల్చర్ లో అండ్ హార్టికల్చర్ లో సైన్స్, ఆపారి (ఆసియా-పసిఫిక్ అసోసియేషన్ ఆఫ్ అగ్రికల్చర్ రీసెర్చ్ ఇన్స్టిట్యూట్స్), యూరోపియన్ ప్లాంట్ హెల్త్ రీసెర్చ్ అండ్ కోఆర్డినేషన్ సంయుక్త ఆధ్వర్యంలో

ప్లాంట్ హెల్త్ ఇన్ ఆసియా : రీసెర్చ్ ప్రయారిటీస్ అండ్ పార్టనర్ షిప్స్" అనే అంశంపై రెండు రోజుల పాటు నిర్వహించిన ఇంటర్నేషనల్ సదస్సును బుధవారం ముగించారు. ఈ కార్యక్రమానికి ముఖ్య అతిథిగా హాజరైన వరప్రసాద్ మాట్లాడుతూ బంగాదేశ్ లో ఎస్పీఎస్ అనేవి వ్యవసాయ ఉత్పత్తులు, ఆహార ఉత్పత్తుల ఆరోగ్యభద్రతను కాపాడటానికి, పర్యావరణ పరిరక్షణకు రూపొందించిన నిబంధనల న్నారు. ఈ విధానాలు అంతర్జాతీయ వాణిజ్యంతో సంబంధం కలిగి ఉంటాయన్నారు. అనంతరం సారా బ్రానెల్ (ఇటలీ) సౌత్ ఏసియా సీపీఐఐ ఇంటర్నేషనల్ రీసెర్చ్ డైరెక్టర్ ద్వారా విజ్ఞాన్ కేఎస్ వరప్రసాద్ మాట్లాడారు. అలాగే పల్నాడు, ప్రకాశం, కృష్ణా, పశ్చిమ గోదావరి, గుంటూరు జిల్లాలకు చెందిన 145 మంది రైతులతో రైతుసేవ సంస్థ ద్వారా వై.వెంకటేశ్వరరావు ప్యానెల్ డిస్కషన్ నిర్వహించారు.

ACKNOWLEDGEMENT

Climate Smart Agriculture plays a pivotal role in acknowledging the urgent imperative to address the ever-increasing challenges posed by climate change, which significantly affect the global food security, livelihoods, and the ecosystems upon which we rely. Climate Smart Agriculture not only plays a crucial part in mitigating these challenges but also in adapting to them, ensuring the sustainability and resilience of our food production systems. We are acutely aware of the intricate interplay between climate, agriculture, and human well-being. It is our responsibility to promote sustainable practices that enhance agricultural productivity, reduce greenhouse gas emissions, and strengthen the resilience of our food systems.

The Global Conference on Climate Smart Agriculture revolved around the main theme of "Transforming Agri-food Systems amid Changing Climate." This significant event was meticulously organized into nine technical sessions, each thoughtfully structured around five key sub-themes. These sub-themes encompassed critical areas, including regenerative agriculture, the impact of climate change on agriculture and rural livelihoods, climate-smart supply chain management, digital innovations aimed at enabling climate-smart agriculture, and the essential policies required to mainstream these transformative practices.

Throughout the conference, a total of 25 scholarly papers were presented. These included 12 enlightening keynote presentations and 13 lead papers, each offering invaluable insights into the challenges and opportunities of climate-smart agriculture. Furthermore, 20 abstracts were thoughtfully selected for poster presentations, enriching our collective knowledge. The event also featured two engaging panel discussions. The first delved into the strategic approach towards developing climate-smart landscapes and food systems, while the second explored farmers' level strategies for promoting climate-smart agriculture.

As the Chairperson of this conference, I extend my profound gratitude to the esteemed guests, distinguished keynote speakers, lead presenters, dedicated researchers, diligent farmers, aspiring students, and respected delegates who graced the "Global Conference on Climate Smart Agriculture" with their presence and unwavering commitment. Your active involvement in this significant event has added immeasurable value to the discourse on climate-smart agriculture.

I also take this opportunity to acknowledge the vital role played by the University Management and Administration. Their unwavering dedication to our academic and research pursuits has undeniably been the foundation upon which our institution's success stands. Their steadfast support, both in terms of logistical arrangements and administrative coordination, has been truly indispensable in ensuring the seamless execution of this conference.

I must also express our heartfelt gratitude to Chithanya Godavarai Grameena Bank, the National Bank for Agriculture and Rural Development (NABARD), Punjab National Bank, Dasarath Fertilizers, Siri Seeds, Sri Venkateswara Irrigation Systems, and Sree Ramanjaneya Micro Irrigation Services for their generous financial support for the Global Conference on Climate Smart Agriculture. Your contributions have been instrumental in making this event a reality, and we are deeply appreciative of your support.

Lastly, I wish to extend a special thanks to Dr. V. Dinesh Rahul, Dr. T. Naresh, Ms. P. Sai Ravali, Ms. V. Priyanka Raj, and Dr. M. Chandra Surya Rao of AHS for their dedicated efforts in compiling the proceedings of the Global Conference. Your hard work and dedication are deeply appreciated.

**Dr. T. Ramesh Babu, Dean,
School of Agriculture and Food Technology,
VFSTR (Deemed to be University)
Conference Chair, GCCSA**

**Proceedings of the Global Conference on
“Climate Smart Agriculture - 2023”
27th to 29th March 2023**



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Proceedings of the Global Conference on “Climate Smart Agriculture - 2023”

The Department of Agricultural and Horticultural Sciences (AHS), Vignan's Foundation for Science Technology and Research (VFSTR) organized a "Global Conference on Climate Smart Agriculture (GCCSA)" on 27th - 29th March, 2023, at VFSTR (Deemed to be University), Vadlamudi, Guntur with the technical collaboration of Asia-Pacific Association of Agricultural Research Institutions (APAARI), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Plant Protection Association of India (PPAI), Dr. Y.S.R. Horticultural University (Dr. YSRHU), Prof. Jayashankar Telangana State Agricultural University (PJTSAU), Sri Konda Lakshman Telangana State Horticultural University (SKLTSHU) and World Agroforestry (CIFOR-ICRAF). The three-day programme was organized in nine technical sessions besides inaugural session, two panel discussion sessions and valedictory session.

Prelude:

The B. Sc. (Hons.) Agriculture was offered by the Department of Agricultural and Horticultural Sciences, the course commenced in the University from the academic year 2021 – 22. The three-day event of the global conference was organized with an intension to congregate the experts in the field of “Climate Smart Agriculture” and to establish better connections for the university in the field of Agriculture research. The conference's key objectives were to showcase research on the impact of climate change on agriculture, examine structural changes and resource degradation and explore strategies to enhance farm income. Given the growing concern over climate change's effects on Indian agriculture, the conference specifically focused on discussing the adverse implications of climate change and potential Climate Smart Interventions.

The conference holds great importance as it serves as a platform for bringing together policymakers, academics, research and development institutes, industry and farmers in the field of Agriculture. The primary purpose is to discuss policy matters, strategies, and implementation challenges related to “Climate Smart Agriculture”. The conference's main objective is to gather specialists from various fields, particularly those focused on adapting food, agriculture and allied sectors to climate change, in order to propose future action plans for sustaining agricultural production. The discussions during the conference provide a roadmap for increasing farmers' income through Climate Smart Agriculture. The 9 sessions are organized around five sub themes: i) Regenerative Agriculture, ii) Climate Change: Agriculture and Rural Livelihoods, iii) Climate Smart Supply Chain Management, iv) Digital innovations for enabling Climate Smart Agriculture, v) Enabling Policies for mainstreaming Climate Smart Agriculture. During the conference, a total of 25 invited papers (12 Keynote and 13 Lead) and 13 accepted papers were presented across various sessions. Additionally, 20 abstracts were approved for poster presentations, adding to the wealth of knowledge shared. The recommendations from each session are summarized below. Furthermore, the conference featured two panel discussions focusing on i) Strategic approach towards developing climate Smart landscapes and food systems ii) Farmers level strategies for promoting Climate Smart Agriculture.

Day 1: 27th March 2023

Inaugural session

The inaugural session started with inviting the dignitaries on to the dias; Dr. T. Ramesh Babu, Dean School of Agriculture and Food Technology, Vignan's Foundation for Science Technology and Research (VFSTR), Dr. M. S. Raghunathan, Registrar, VFSTR; Dr. B. Sarath Babu, President, Plant Protection Association of India (PPAI); Dr. Manoj Dabas, Deputy Chief of Party, Trees Outside Forest in India (TOFI), CIFOR-ICRAF; Dr. K. S. Vara Prasad, Former Director, ICAR-IIOR, present Project Manager, USDA-SPS Project, APAARI; Dr. C. Vasudevappa Vice Chancellor, National Institute of Food Technology Entrepreneurship and Management (NIFTEM); Dr. S. R. Niranjana, Former Vice Chancellor, Gulbarga University; Dr. B. Venkateswarlu, Former Vice Chancellor, VNMKV and Former Director, ICAR- CRIDA; Dr. R. R. Hanchinal, Former Vice Chancellor, UAS- Dharwad and Former Chairman, PPVFR; Dr. N. S. Rathore, Former Deputy Director General of Education, ICAR and Former Vice Chancellor, MPUAT; Dr. M. Malakondaih, Former Director General of Police A. P, Advisor - VFSTR; Prof. P. Nagabhushan, Vice Chancellor, VFSTR; Dr. Lavu Rathaiah, Chancellor, VFSTR; Dr. Arvind Kumar Deputy Director General- ICRISAT. All the dignitaries had stepped forward to light the lamp. Dr. T. Ramesh Babu, Dean SAFT, VFSTR and Conference Chair enlightened about the purpose of the Global Conference on Climate Smart Agriculture – 2023.



Prof. P. Nagabhushan, Hon'ble Vice Chancellor, VFSTR, expressed delight at the significant expansion of the School of Agriculture and Food Technology (SAFT). He emphasized the conference's potential to greatly contribute to the field of agriculture. Prof. Nagabhushan noted that individuals from diverse departments, including Electronics, Mechanical engineering, and Computing, often have agricultural roots, with many having parents from an agricultural background. VFSTR stands out among private universities as the first to wholeheartedly implement the expectations of the National Educational Policy (NEP), focusing on continuous learning and assessment, as witnessed by the students. He commended SAFT for introducing the innovative minor course on Smart Farming. Prof. Naga Bhushan expressed his belief in the exceptional logical and analytical thinking abilities of budding Agriculture graduates, which he anticipated would become a reality within the next ten years.



Dr. T. Ramesh Babu, Dean of SAFT, welcomed the esteemed guests both present on the stage and off the stage with great warmth and enthusiasm. Further, Dr. Ramesh Babu assured all the conference participants that the three-day programme comprising of 12 keynote papers, 13 lead papers and 13 oral presentations, 20 poster presentations and two panel discussions one with stakeholders and the other with farmers would be productive and informative for everyone involved. Besides, Dr. Ramesh Babu made reference to the

6th Deans

report of ICAR, highlighting the proposal for a B. Sc. (Hons) Agri. degree consisting of 160 credits, with an additional requirement of 20 online credits for Honors degree. Further, he also mentioned that a minor course called Smart Farming (Future of Agriculture) has been introduced at VFSTR, comprising five courses worth 20 credits in total. These courses include Basics of crop production and precision farming, Hitech Horticulture, Agri-Business Management, Soilless Farming, and Digital Agriculture. Furthermore, he appealed to the ICAR stall bodies in attendance to consider incorporating the provision of minor course concept in place of online course whereas in the 6th Dean's committee, as it would greatly benefit the students and potentially enhance their employability or foster entrepreneurial ventures.



Cmde. Dr. M.S. Raghunathan, Registrar, VFSTR expressed his gratitude to all the delegates and dignitaries who had made the effort to attend the conference. Dr. M.S. Raghunathan, acknowledged the remarkable achievements of VFSTR in the fields of academics, research, and training, despite being established only 14 years ago. Further, Dr. M.S. Raghunathan highlighted that nearly 12,000 students have successfully graduated from VFSTR as of 2022. Additionally, he mentioned that the university has undergone two cycles of NAAC accreditation, resulting in an upgrade from grade A to grade A⁺.

Furthermore, he emphasized that the agriculture degree offered by VFSTR has not only attracted students from nearby areas but also from other regions of Andhra Pradesh. Moreover, he drew attention to the fact that out of the total 82.86 acres of VFSTR's campus, a significant 40-acre portion has been specifically allocated for the Department of Agricultural and Horticultural Sciences (AHS), underscoring its importance.



Dr. B. Sarath Babu, President, PPAI commended the university for its impressive growth and development within a relatively short span of 14 years. Dr. Sarath Babu expressed admiration for the department of AHS for its proactive approach in integrating three technology courses, namely Python Programming, Machine Learning, and Statistical Methods with Data Visualization. In addition to that Dr. Sarath Babu emphasized that the inclusion of these technology courses would provide students with valuable skills, making them more desirable to technology companies and industries.



Mr. Manoj Dabas, Deputy Chief of Party, TOFI: CIFOR-ICRAF emphasized that the true Smartness of agriculture lies in the intelligence and adaptability of farmers themselves. Additionally, Mr. Manoj expressed that merely implementing technology alone is insufficient to make agriculture Smart; it requires farmers who are knowledgeable and willing to embrace technological advancements. Further Mr. Manoj compared the battle between the sea and the land as a metaphor for the ongoing challenges faced between nature and mankind. Also, he highlighted that the current forest cover in India stands at 21%. Moreover, Mr. Manoj mentioned that to enhance the resilience of agriculture,

a Smart approach of reintegrating trees into agricultural practices is necessary. Furthermore, Mr. Manoj added that strengthening the tree component of agriculture would ensure food security for the growing population and address the pressing needs of the nation.



Dr. K.S Varaprasad, Project Manager (USDA – SPS PROJECT) APAARI acknowledged the undeniable reality of climate change and stressed that those who are adaptive and intelligent will endure, while those who are not will face extinction. Further, Dr Varaprasad emphasized that being Smart is not a choice but a necessity in the face of climate change. Also, he specifically highlighted the profound impact of climate change on farmers, particularly small-scale farmers who make up 80% of the farming population in our country. Additionally Dr. Varaprasad expressed his hope for meaningful discussions that would empower farmers with the knowledge and skills needed to navigate these challenges and ensure their survival, as they currently find themselves on the precipice of disappearing. Furthermore, Dr. Varaprasad emphasized that it is our collective responsibility to empower and uplift farmers by equipping them with the necessary tools to adapt and thrive in the face of climate change.



Dr. C. Vasudevappa, the Vice Chancellor of NIFTEM, Haryana, highlighted that India has been fortunate to attain food security. However, he pointed out that there is a significant amount of food loss within the food supply chain management. He stressed that in order to achieve food security by 2050, it is crucial to prioritize the reduction of food wastage. Moreover, during his discussion, he emphasized the significance of consuming healthy food and encouraged students to cultivate entrepreneurial skills specifically in the domains of Agriculture and Food Technology.



Dr. S.R Niranjana, Former Vice Chancellor, Gulbarga University commended the university for selecting the topic of "Climate Smart Agriculture" as a forward-looking initiative. Further Dr. Niranjana highlighted the importance of researching and identifying the means and techniques necessary to meet future food demands by the year 2050. He acknowledged that significant efforts and work need to be devoted to this endeavor. Furthermore, he expressed appreciation for the Vice-Chancellor, Prof. P. Nagabhushan, for successfully implementing the choice-based credit system at Mysore University, making it a notable achievement.



Dr. B. Venkateswarlu, Former Vice Chancellor, VNMKV Parbhani and Former Director, ICAR-CRIDA emphasized that climate change is currently the most pressing issue, surpassing all others in importance. Further, Dr. Venkateswarlu noted that climate change affects all sectors, but the agricultural sector is particularly vulnerable. Adding to that Dr. Venkateswarlu mentioned just a week ago, the country was expecting a bountiful harvest of 110 million tons of wheat in the *Rabi* season, with everything progressing smoothly. However, unforeseen,

and untimely rains accompanied by hailstorms struck 5-6 states in North India, causing significant damage. He highlighted this event as an example of how climate change can disrupt and have profound consequences. Furthermore, he stressed the urgency of addressing climate change and the need for immediate action to mitigate its impacts, emphasizing the potential consequences, if necessary, measures are not taken.



Dr. R. R. Hanchinal, Former Vice Chancellor, UAS, Dharwad, Former Chairman, PPVFR highlighted the potential for significant advancements by making agriculture Smarter, especially in response to current uncertainties. Besides, Dr Hanchinal cited impressive achievements in food production, with 328 million tons of food and 340 million tons of horticulture produced in the previous year. Further, he mentioned the success of various revolutions, including the green revolution, blue revolution, yellow revolution, and advancements in vegetable production. However, he cautioned that with every 2.5⁰C increase in temperature, there is a corresponding reduction in yield, accompanied by the emergence of new diseases and pests. Furthermore, he pointed out the challenge of supporting 17 percent of the world's population with only 2.38 percent arable land, along with limited freshwater resources accounting for just 4 percent. Given these circumstances, he stressed the imperative to feed a population of 1.416 billion amidst unfavorable climate conditions, necessitating the generation of new innovations and proactive measures to address climate change.



Dr. N. S. Rathore, Former DDG (Edn.) ICAR and Former Vice Chancellor, MPUAT brought attention to the undeniable fact that climate change has already occurred, and he emphasized the urgency to take action. He introduced the acronym "SRIRAM," which stands for Scientific Research Intervention, Resilience Agriculture Adoption, Climate Change, and Mitigation Climate Change. Dr. Rathore explained that resilience agriculture refers to the capacity and ability of our agricultural system to effectively confront climate change challenges and respond promptly. Additionally, he highlighted the significance of mechanization and secondary agriculture. He emphasized that adoption entails taking proactive measures to ensure our ability to withstand the impacts of climate change and secure our survival in the face of these changing climatic conditions.



Dr. Lavu Rathaiah, Chancellor, VFSTR expressed his dissatisfaction with the current situation, noting that everyone involved in agriculture seems to be Happy except farmers themselves. Dr. Rathaiah highlighted the perspective that both the government and society tend to view agriculture solely as an economic issue, neglecting the social aspects that are often overlooked by the media. Further, he emphasized the importance of agriculturalists engaging in conversations with individuals from various parts of the world to learn how technology can be effectively adopted to simplify farmers' tasks. In conclusion he drew attention to the adverse effects of global warming on agriculture.

Also advised young aspiring agriculturalists to conduct research and discover new methods that enable crops to adapt to the extreme conditions caused by climate change.

The souvenir prepared for the conference containing Keynote Papers, Lead Papers, Strategic Papers and Accepted Papers (Oral and Poster Presentation) was released by the dignitaries present on the dais.



Dr. Arvind Kumar, Deputy Director General – Research, ICRISAT reminisced about an experience where he was assigned the responsibility of converting forest land into agricultural land for IRRI in the prime minister's constituency. Additionally, Dr. Aravind praised the chairman's visionary approach towards nurturing young entrepreneurs and agricultural scientists to sustain the vitality of agriculture. Furthermore, he stressed that we owe a responsibility to farmers to make agriculture less burdensome, more technology-friendly, and Smarter. Also, he reminded everyone not to forget that they chose this path to serve farmers and contribute to a larger cause.

Prof. P. Nagabhushan, Hon'ble Vice Chancellor, VFSTR in his presidential remarks noted that the university has introduced the opportunity for professionals to pursue a Ph.D. Further, Prof. P. Nagabhushan drew attention to the wastage of food in modern society, expressing his dissatisfaction with unnecessary excess consumption. Also, he emphasized that wasting cooked food is highly inappropriate. In addition to that he highlighted the significance of not only procuring food but also preserving it, underscoring its importance. Furthermore, he stressed the value of combining traditional knowledge with techno-scientific knowledge in the field of agriculture. Nonetheless, he recalled Lal Bahadur Shastri's slogan, "Jai Jawan Jai Kisan," which emphasized the vital roles played by both the soldier and the farmer in providing for our well-being and enjoyment. In conclusion he remarked that adversity serves as a catalyst for progress, and therefore, welcomed challenges as they enable us to become Smarter and more resilient.



Dr. N. Narayan Rao, HoD, Applied Engineering in his Vote of thanks conveyed his gratitude for having the opportunity to attend and participate in the opening ceremony alongside esteemed dignitaries. Further, he expressed his honor at the presence of distinguished guests and participants, recognizing their significance in inaugurating what are expected to be a meaningful and promising event. Also, he extended his

heartfelt appreciation to the guests for graciously sparing time from their busy schedule to be part of the conference. Additionally, he expressed sincere thanks to the organizing committee, volunteers, and staff for their dedicated efforts in arranging the conference. Furthermore, he expressed gratitude to the sponsors and partners whose support and collaboration have contributed to making the event even more vibrant and impactful.

Technical session I

Chairman : Dr. Arvind Kumar, Deputy Director General (Research), ICRISAT

Co-Chairman : Dr. K. S. Varaprasad, Former Director, ICAR-IIOR
Project Manager (USDA – SPS Project), APAARI, Bangkok

Dr. T. Ramesh Babu, Former Dean of Agriculture, ANGRAU
Dean, School of Agriculture and Food Technology, VFSTR

Rapporteurs : Dr. M. V. Hadole, Assistant Professor, VFSTR
Mr. Md. Rahaman Khan, Assistant Professor, VFSTR

During this session, three prominent keynote and invited papers took center stage and captivated the delegates.

1. Climate Resilience for Drylands

- Dr. Arvind Kumar

Dr. Arvind Kumar, Deputy Director General of Research at ICRISAT, delved into the intricacies of dryland agriculture and underscored the significance of embracing climate-resilient technologies to tackle the impending food crisis predicted for 2050. Advocating for a forward looking approach, he suggested favoring millet cultivation over conventional rice-wheat farming.

Dr. Aravind also emphasized the pivotal role of mechanization in mitigating the challenges posed by climate change in agriculture. In addition to this, he shed light on the importance of identifying millet market opportunities and adopting water budget-based cropping techniques to ensure sustainable agricultural practices. His insights shed valuable light on the path towards a resilient and prosperous future for agriculture in drylands.

2. Climate Smart Agriculture: Can India Cope with Climate Change Impacts?

- Dr. B. Venkateswarlu

Dr. B. Venkateswarlu, Former Vice Chancellor of VNMKV, Parbhani, and Former Director of ICAR-CRIDA, delved into the profound implications of climate change on agriculture in India. With eloquence, he elucidated the essence of climate change and its inherent year-to-year variations, bringing attention to anthropogenic warming and its far-reaching consequences on global temperatures, notably the escalation of night temperatures.

In his comprehensive presentation, Dr. Venkateswarlu expounded on the dual nature of climate change's impact on crops, encompassing both positive and negative aspects, while also elaborating on its significant economic ramifications. He passionately emphasized the imperative adoption of climate-resilient crop varieties, embracing diversified cropping patterns, prioritizing irrigation and soil management, advocating water harvesting techniques, and promoting agroforestry practices.

Moreover, Dr. Venkateswarlu stressed the urgency for sustained long-term research to effectively tackle the multifaceted challenges posed by climate change. His insights not only enriched the understanding of climate change's repercussions on agriculture but also underscored the pressing need for proactive measures to ensure a sustainable and secure future for Indian agriculture.

3. Making Agriculture Smart: Need to Integrate Trees with Cropping Patterns

-Mr. Manoj Dabas

Mr. Manoj Dabas, the Deputy Chief of Party at TOFI, CIFOR – ICRAF, underscored the pivotal role of trees in fostering intelligent agriculture. He passionately stressed the adverse effects of conventional energy generation processes on the environment and the alarming rate at which deforestation outpaces reforestation efforts.

Mr. Dabas shed light on India's substantial wood demand, leading to imports from less developed countries like Indonesia. He emphasized the pressing need for sustainable practices, particularly in agroforestry, as trees play a vital role in safeguarding the soil from erosion and contributing to agricultural prosperity.

The core message of his presentation centered around the significance of increasing forest cover for effective carbon sequestration and the mitigation of CO₂ emissions. Mr. Dabas passionately advocated for planting more trees to ensure the sustainable production of wood and foster a greener and healthier future for agriculture and the environment.

The chairman stressed the utmost importance of climate-Smart agriculture in the face of ongoing climate change impacts. The session's papers focused on several critical aspects, highlighting the need for proactive measures:

- **Adapting Climate Resilience Technology:** To meet the food requirements of the growing population, it is imperative to adopt climate-resilient technologies. The projected decrease in rice yield by 2050 necessitates urgent action to ensure food security.
- **Enhancing Millet Market Demand in Drylands:** In regions with drylands, identifying opportunities to boost the market demand for millets is crucial. Implementing water budget-based cropping patterns can contribute to sustainable agriculture in these areas.
- **Dual Impact of Climate Change on Crops:** Climate change has both positive and negative effects on crops, making it essential to understand and address these challenges for successful agricultural practices.
- **Climate Change's Impact on India's Agriculture GDP:** Predictions indicate that climate change will significantly impact India's Agriculture GDP, underscoring the urgency to develop adaptive strategies.
- **Development of Drought-Tolerant Crop Varieties:** The need for drought-tolerant crop varieties and the adoption of diversified cropping patterns is crucial to build resilience against climate-induced adversities.
- **Importance of Increasing Vegetative Cover:** Wood contains 50% carbon by weight, making it a significant resource in mitigating climate change effects. Increasing vegetative cover, particularly through forests, has the potential to sequester billions of tons of greenhouse gases, emphasizing its role in climate change mitigation.
- **The Trees Outside Forests in India (TOFI) program** is a collaborative effort of USAID and MoEFCC, Government of India. This five-year initiative, spearheaded by a consortium of eight partners led by CIFOR-ICRAF, is dedicated to increasing the expanse of trees outside forests to enhance both livelihoods and the environment.

These research findings and insights presented during the session underscore the necessity of urgent and coordinated efforts to implement climate-Smart practices and technologies to safeguard agriculture and the environment for future generations.



Technical Session II

- Chairman** : Dr C. Vasudevappa, Vice Chancellor, NIFTEM-Kundli
- Co-Chairman:** Dr D. Vijaya Ramu, Dean PCF, VFSTR
- Rapporteurs** : Dr. Syed Irshaan
Dr. Mrinmoy Roy

During this session, four distinguished keynote and invited papers presents valuable insights and research findings to the delegates.

1.Climate Smart Supply Chains (Food Supply Chain Perspective)

- Dr. C. Vasudevappa

Dr. Vasudevappa, Vice Chancellor, NIFTEM-Kundli underscored the paramount importance of the Agriculture, Animal Husbandry, and Aquatic sectors in fostering national growth and achieving food self-sufficiency. During his address, he shed light on the critical issue of food losses and waste in the supply chain.

Recognizing the challenges posed by population growth and climate change, Dr. Vasudevappa emphasized the necessity of Climate Smart Agriculture as a proactive approach to ensure food security and sustainability. The impacts of climate change on food production were discussed in depth, emphasizing the urgency for responsive strategies.

In pursuit of effective mitigation, the Vice Chancellor outlined various approaches, including assessing linkages across the supply chain, promoting sustainable agricultural practices, facilitating better access to finance, and developing robust postharvest infrastructure.

Moreover, the session highlighted the significance of Climate Resilient Supply Chains, integration of Information and Communication Technology (ICT), and the adoption of green supply chain practices as key enablers of increased productivity and sustainability in these sectors.

The comprehensive insights presented by the Vice Chancellor emphasized the imperative need for coordinated efforts and innovative solutions to address the challenges faced by agriculture, animal husbandry, and aquatic sectors, ensuring their vitality in fostering national growth and securing food self-sufficiency for the future.

2.Transforming Agrifood systems amid climate change

- Dr. Ravi Khetarpal, Executive Director, APAARI, Bangkok

Dr. K.S. Varaprasad, the Project Manager of USDA-SPS Project at APAARI Bangkok, delivered an insightful presentation that emphasized the interconnectedness between sustainable development goals and climate change. He drew attention to the critical 5F crisis (Food, Feed, Fuel, Fertilizer and Finance) that humanity faced during the COVID-19 pandemic, exposing weaknesses in agrifood systems.

During his talk, Dr. Varaprasad highlighted the mission and strategy of the Food and Agriculture Organization (FAO), aiming to achieve more efficient, inclusive, resilient, and sustainable agrifood systems for enhanced production.

Introducing (The Modelling System for Agricultural Impacts of Agriculture (MOSAICC), an interdisciplinary tool for climate change impact assessment, he underlined the pressing threat climate change poses to agriculture. To combat these challenges, he stressed the essentiality of integrating climate-Smart agriculture as part of the solution.

Furthermore, Dr. Varaprasad called upon the global community to take decisive action in reducing emissions and promoting sustainable practices to safeguard agricultural systems and ensure a more resilient and sustainable future. His presentation resonated with the audience, encouraging a collective commitment towards a more climate-resilient and sustainable world.

3. Transformation of Agri-Food System to Agroecology-based Natural Farming: A Sustainable Solution to Climate Change

- Dr. K. S. Varaprasad

During his presentation, Dr. K. S. Varaprasad, the Project Manager of USDA-SPS Project at APAARI, Bangkok, brought attention to the adverse effects of climate change on various aspects of the agricultural value chains, transportation, and livestock productivity.

Addressing the environmental impact of agriculture and livestock production, he emphasized the significant contribution of these sectors to greenhouse gas emissions and deforestation. To counteract these negative effects, Dr. Varaprasad advocated for the adoption of sustainable practices like Agro ecology and Natural Farming. These approaches, he highlighted, can not only enhance biodiversity and soil health but also facilitate carbon sequestration while concurrently reducing GHG emissions.

Furthermore, the presentation emphasized the importance of crop diversification and efficient water usage in sustainable agriculture. Dr. Varaprasad showcased the success of Zero Budget Natural Farming as a viable model for sustainable agriculture.

To further promote these sustainable approaches, the speaker urged increased investments in research and development focused on natural farming. By adopting these practices, agricultural systems can become more resilient to climate change while fostering ecological balance and sustainable food production.

In his address, Dr.P.S. Brahmanand, the Director of WTC, ICAR-IARI, New Delhi, underscored the critical challenges facing water and food security in India. He shed light on the impact of population growth, dwindling water resources, and the effects of climate change on these vital sectors.

To tackle these challenges, Dr. Brahmanand recommended the adoption of climate-resilient water management technologies developed by ICAR. He emphasized the significance of practicing Climate-Smart Agriculture and implementing resilient water management practices to ensure sustainable food production and water security.

A key focus of his presentation was on the concept of integrated water resource management. He highlighted the importance of utilizing innovative techniques to control drought and ensure the long-term sustainability of agriculture and water resources in India.

By embracing these strategies and technologies, India can work towards overcoming the hurdles posed by water and food security, fortifying its resilience to changing climatic conditions and securing a prosperous and sustainable future.

In his closing remarks, the chairman of the session emphasized the pressing need for the integration of Information and Communication Technology (ICT) in the climate-Smart supply chain management of agricultural produce. The papers presented during the session mainly focused on the following key aspects:

- Weaknesses Exposed by the COVID-19 Pandemic and 5F Crisis: The COVID-19 pandemic and the 5F crisis revealed vulnerabilities and low resilience in agrifood systems, calling for robust measures to address these challenges.

- **MOSAICC as an Interdisciplinary Climate Change Impact Assessment Tool:** The Modelling System for Agricultural Impacts of Climate Change (MOSAICC) was introduced as a country-driven, interdisciplinary tool for assessing climate change impacts at a national level.
- **Climate Resilient Supply Chains:** Key areas for Climate Resilient Supply Chains were explored, including increasing agricultural productivity and income sustainability, adapting small-holder farming systems, reducing greenhouse gas emissions, adopting regenerative agriculture, and implementing green supply chains.
- **Agro ecology for Climate Change Mitigation:** Sustainable approaches like Agro ecology were discussed, aiming to address the climate change crisis by enhancing biodiversity, soil health, ecosystem services, and promoting social equity and resilience.
- **Natural Farming for Soil Health and Carbon Sequestration:** Natural Farming, characterized by minimal or no tillage, was presented as a sustainable solution to reduce soil disturbance, increase soil organic matter, and enhance carbon sequestration, contributing to climate change mitigation by reducing greenhouse gas emissions.
- **Benefits of Crop Diversification and Efficient Water Use:** Crop diversification, intercropping, and crop rotation were identified as practices that enhance biodiversity, improve soil health, and reduce the risk of pests and diseases. Additionally, natural farming practices promote efficient water use through techniques like rainwater harvesting and water-saving technologies, which can significantly reduce water consumption compared to flood irrigation.
- **Adoption of Innovative Water Management Techniques:** The integration of innovative water management techniques into policies like the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was emphasized to enhance agricultural water efficiency and sustainability.

These insights presented during the session underline the importance of integrating sustainable practices and innovative technologies to address climate change challenges and ensure the resilience and sustainability of agricultural systems.



Technical Session III

- Chairman** : Dr. N. S. Rathore, Former DDG (ICAR)
Former Vice Chancellor, MPUAT, Udaipur
- Co-Chairman:** Dr. K. P. Vidhu, Joint Director, NIPHM, Hyderabad
Dr. N. Narayan Rao, Asso. Professor and Head, AE, VFSTR
- Rapporteurs** : Ms. K. Sravya, Assistant Professor, AHS, VFSTR
Mr. G. Adithya, Assistant Professor, AE, VFSTR

In this session, three pivotal keynote and invited papers were delivered.

1. Mechanization and Post-Harvest Technology

- Dr. N. S. Rathore

Dr.N.S. Rathore, former Deputy Director General (Education), ICAR and former Vice Chancellor of MPUAT, Udaipur, set forth the significance of mechanization in Indian agriculture and its current progress. He underscored the importance of adopting optimal design criteria for precision farming machinery, addressing the concerns arising from improper machinery selection by farmers. Moreover, he explored the challenges associated with integrating artificial intelligence into agricultural mechanization.

Dr. Rathore also delved into a wide range of opportunities in secondary agriculture, with a particular focus on post-harvest activities and value addition. He emphasized the need for improved policies and the development of suitable machinery to enhance post-harvest operations in the agricultural sector. His insightful discourse provided valuable insights into the future of mechanized farming in India.

2. Assessment of Pesticide Spraying Awareness for Optimal Efficiency and Reduced Exposure Hazards

-Dr. K. P. Vidhu

Dr. K. P. Vidhu, Joint Director of NIPHM, Hyderabad, delved into the critical issue of environmental pollution caused by pesticides and chemicals. He shared the results of a comprehensive survey that encompassed irrigation methods, plant protection techniques, and behavioral patterns observed among farmers.

Dr. Vidhu emphasized the noteworthy disparities in the behavior and health of farmers who used protective gear while applying pesticides and fertilizers in contrast to those who did not. This highlighted the importance of adopting safety measures to protect farmers from potential harm.

Furthermore, he stressed the necessity of enhancing the understanding of chemical labels and promoting proper disposal of pesticide containers to prevent environmental contamination.

In conclusion, Dr. Vidhu advocated for a revision of policies that would limit pesticide spraying solely to licensed personnel. This approach aims to mitigate the adverse impact of pesticides on the environment and human health, ensuring a more sustainable and responsible agricultural ecosystem.

3. Innovation and Partnership for Climate-Smart Agriculture: Incubating Solutions for a Sustainable Future – Mr. Sandeep

During his talk, Mr. Sandeep, the CEO of TBI (Technology Business Incubator) at VFSTR, highlighted the presence of several noteworthy Agri-tech incubators in India, including

ICRISAT in Hyderabad, Villgro in Chennai, Vignan TBI, ANGRAU Poshan incubator, GRAMEENA incubation center in Visakhapatnam, and SVCET TBI in Chittoor.

He addressed the challenges faced by innovators in the agricultural technology sector, which encompassed limited resources, technical and market hurdles, a need for mentorship, funding constraints, and the importance of networking for growth and success.

Mr. Sandeep emphasized the pivotal role played by the government and its policies in supporting innovation and fostering partnerships for the advancement of climate-Smart agriculture.

In conclusion, he encouraged students to share their innovative ideas and concepts, urging them to seek support from relevant organizations and funding agencies available at VFSTR to further develop and bring their agricultural innovations to fruition.

The session's chairman expressed the view that the future of mechanization should be intertwined with artificial intelligence. Additionally, he underscored the significance of farmers selecting the appropriate machinery for specific purposes to make agriculture Smarter and more efficient.

The key points from this session are:

- Precise design criteria are essential in the development of machinery for Precision Farming to ensure optimal performance.
- Addressing the challenges that farmers encounter in selecting appropriate machinery for specific tasks is crucial for improving agricultural efficiency.
- Integrating artificial intelligence into mechanization presents both challenges and significant opportunities in India.
- Improving farmer's knowledge about reading chemical labels and identifying the chemicals they use is imperative and requires attention.
- Implementing proper disposal methods for pesticide containers is vital to address ecological and health concerns.
- VFSTR is committed to support and empower young entrepreneurs to pursue their startup aspirations by offering encouragement and assistance.



Day 2: 28th March 2023

Technical Session IV

- Chairman** : Dr. R.R Hanchinal, Former Vice Chancellor, UAS Dharwad
Former Chairman, PPVFR
- Co-Chairman:** Dr. B. Sarath Babu, Former Principal Scientist and Head,
ICAR-NBPGR, Regional Station, Hyderabad, President, PPAI
Dr. T.C Venkateswarlu, HOD, Biotechnology, VFSTR
- Rapporteurs** : Ms. V. Priyanka Raj, Assistant Professor, AHS, VFSTR
Dr. D. Lavanya, Assistant Professor, FT, VFSTR

A total of four keynote and invited papers were delivered during this session.

1. Enhancing agriculture productivity through climate Smart seed delivery systems

– R. R. Hanchinal

Dr. R.R Hanchinal, former Vice Chancellor of UAS, Dharwad, emphasized the significance of Climate-Smart Agriculture in combating world hunger through improved crop production. He delved into the evolution of the Indian seed industry and provided insights into the present status of seed production in both the public and private sectors. Dr. Hanchinal discussed how seed security directly impacts food, nutritional, and social security.

Furthermore, he shed light on the challenges posed by climate change and stressed the importance of adopting Smart cultivation practices to mitigate its effects. Dr. Hanchinal concluded by emphasizing the critical role of quality seeds in achieving a Second Green Revolution, highlighting their paramount importance in sustainable agricultural development.

2. Sustainable Agricultural Production through Soil Health Management and Robust Varieties in the wake of Climate Change

- Dr. A. Satyanarayana

Dr. A. Satyanarayana, Former Director of Extension at ANGRAU and Executive Director of Sangam Seeds, emphasized the fundamental importance of healthy soils in cultivating nutritious crops, leading to the overall well-being of individuals and the nation.

He discussed the concept of eco-agriculture and elucidated the crucial role of humus in maintaining soil health. Dr. Satyanarayana also highlighted the significance of green revolution technology in agricultural practices.

Moreover, he shed light on the benefits of using potassium humate and the role of microorganisms in promoting soil fertility. Additionally, he explored the intricate relationship between phyto hormones and plant parasites.

Dr. Satyanarayana concluded by underscoring the pivotal role of soil fertility in producing healthy crops and enhancing national health through innovative agricultural practices. He emphasized the need for development of climate resilient varieties with enhanced resilience to changing climate. He also addressed the impacts of climate change on food production systems and the various actors in the food supply chain.

Dr. B. Sarat Babu, Former Principal Scientist and Head at ICAR-NBPGR, Regional Station, Hyderabad, focused on policy and legal frameworks concerning plant genetics conservation. He covered several crucial topics, including the PGR (Plant Genetic Resources) policy, the protection of plant varieties, and biodiversity conservation.

Dr. Babu delved into the impact of climate change on plant genetic resources and stressed the significance of their sustainable use and development. He highlighted the crucial role played by the Indian plant genetic resource management system in acquiring, evaluating, conserving, and utilizing germplasm.

In conclusion, Dr. Babu emphasized the paramount importance of leveraging plant genetic resources to enhance cultivars, leading to increased productivity and addressing the nation's challenges related to hunger and food security. His presentation shed light on the importance of sound policy and legal measures for preserving and utilizing plant genetics for the benefit of society and agriculture.

3. Genetically Modified Technology for Nutrition and Food Security

–Dr. S. R. Niranjana

Dr. S.R. Niranjana, Former Vice Chancellor of Gulbarga University and current Professor and Chairman of the Department of Biotechnology at the University of Mysore, underscored the urgency of modernizing agriculture to meet the increasing food demands of the growing population.

Dr. Niranjana extensively discussed the pivotal role of genetic modification in improving crop production. He addressed the challenges posed by climate change and soil health while emphasizing the benefits of biotechnology in enhancing food security.

Throughout his presentation, Dr. Niranjana provided examples of genetically modified (GM) foods to showcase the potential of this technology in agriculture. He concluded by emphasizing the careful adoption of GM technology, which has the capacity to significantly increase crop production while promoting eco-friendly farming practices. His insights shed light on the potential of biotechnology in shaping a sustainable and food-secure future for the nation.

The session's chairman expressed appreciation for the significance of seeds as the primary agricultural input and stressed the need for research and development to prioritize climate-resilient crop varieties.

The salient points outing the deliberations from this session are:

- Climate change challenges and Smart cultivation practices: The impact of climate change, including rising temperatures, pests, diseases, water scarcity, and desertification, was discussed. The session emphasized the importance of using climate-resilient crop varieties like Navara rice, Borah rice, and salt-tolerant wheat to manage these challenges.
- The significance of quality seeds for the Second Green Revolution: The success of the Second Green Revolution was highlighted, emphasizing the critical role played by the availability of high-quality seeds.
- Soil health and its connection to healthy crops and food: The session emphasized the integral link between healthy soils, healthy crops, nutritious food, and the overall well-being of the people and the nation.
- Climate Smart Agriculture and its benefits: Climate Smart Agriculture was presented as a solution for sustainable productivity growth, income increase, adaptation, resilience building, and reduced greenhouse gas emissions. It was discussed how this

approach integrates global supply chains, sustainable production systems, technological innovations, and diverse consumer bases.

- Sustainable use of plant genetic resources: The impact of climate change on plant genetic resources and the significance of their sustainable use and development in addressing climate change challenges were discussed. Both conscious and unconscious selection methods for crop protection were explored.
- Conservation methods for genetic resources: The session covered ex-situ conservation methods such as in-vitro techniques, pollen collection, tissue culture, and DNA preservation, along with in-situ conservation methods that involve preserving natural habitats, ecosystems, and bio resource heritage sites.
- Biotechnology and its contributions to food security: The challenges posed by climate change and soil-borne pathogens in agriculture, particularly in irrigation-dependent food production, were addressed. The role of biotechnology, exemplified by BT cotton production in India, in enhancing food security, increasing crop productivity, reducing insecticide use, and promoting poverty alleviation and income growth was discussed.
- Genetically modified (GM) foods and their production: The session explored the production of genetically modified (GM) foods using genetic engineering technology. Examples such as BT brinjal, corn, golden rice, tomato, and herbicide-resistant BT cotton were highlighted as prominent instances of GM food production.



Technical Session V

- Chairman** : Dr. K.P. C Rao, Honorary Fellow, ICRISAT
- Co-Chairman:** Dr. P.S. Rao, Professor and Head, Agri-Food, IIT Kharagpur
Dr. R. Srikanth, Head, Innovation Hub (iHub)
Senior Scientist (Digital Agriculture), ICRISAT
- Rapporteurs** : Mr. Narendra Kumar, Assistant Professor, FT, VFSTR
Dr. V. Dinesh Rahul, Assistant Professor, AHS, VFSTR

A total of three keynote and invited papers were delivered during this session.

1. Climate Information Services for Climate-Smart Agriculture

-Dr. K.P.C. Rao

Dr. K.P.C. Rao, Honorary Fellow at ICRISAT, strongly advocated the utilization of the Intelligent Systems Advisory Tool (ISAT) as a comprehensive solution for accessing, analyzing, generating, and disseminating contextualized advisories from multiple sources. This tool empowers users in the agricultural sector to make well-informed decisions while planning and managing their agricultural systems.

Dr. Rao highlighted that ISAT integrates a wealth of information, including historical climate data analysis, climate impacts on crop production, short, medium, and long-range climate and weather forecasts, and locally relevant production technologies. By utilizing this extensive data, the tool is capable of generating location-specific advisories with actionable information tailored to the needs of farmers.

Pilot studies conducted in India, Kenya, and Zambia have demonstrated the efficacy of ISAT. The tool proved invaluable to farmers, enabling them to make timely and appropriate decisions, manage their farms profitably, and reduce risks effectively. ISAT stands as a promising advancement in agricultural technology, empowering farmers to adapt and thrive amidst changing climate conditions.

2. Climate Smart Agriculture in Asia: Prospects and Perspectives

– Dr. Ancha Srinivasan (Online Presentation)

Dr. Ancha Srinivasan, Principal Climate Change Specialist and Climate Change Focal Point for Southeast Asia at the Asia Development Bank, delivered a comprehensive talk on Climate Smart Agriculture in Asia and its future prospects.

Dr. Srinivasan addressed the pressing challenges to food security in Asia and globally, particularly the need to increase food grain production by 2050 while taking into account the impacts of climate change. He underscored the importance of adopting climate-resilient Smart agricultural practices, advanced technologies, and efficient water and greenhouse emission management.

Moreover, he highlighted the significance of promoting the adaptation of good manufacturing practices (GMP) in agribusiness to enhance overall productivity and sustainability.

Dr. Srinivasan also discussed the adverse effects of climate change on food prices, water scarcity, food safety, and productivity. Recognizing these challenges, he emphasized the importance of implementing game-changing policies and greenhouse technologies to foster climate-responsive agriculture production.

In conclusion, Dr. Srinivasan stressed the urgent need to prioritize climate-responsive agriculture production technologies and sustainable practices in India to ensure food security.

and safeguard the environment. His insights shed light on the crucial role of Climate-Smart Agriculture in addressing the complex challenges facing the agricultural sector in Asia and beyond.

Dr. R. Srikanth, Head of Innovation Hub (iHub) and Senior Scientist at ICRISAT, delved into the integration of agriculture into digital platforms, focusing on three essential pillars: ideate, mitigate, and impact.

Dr. Srikanth highlighted the pivotal role played by digital platforms in agriculture, particularly during the challenging times of the COVID-19 pandemic. He emphasized the transformative impact of using Artificial Intelligence (AI) in various aspects of farming, such as crop monitoring, pest control, remote sensing, drones, and the Internet of Things (IoT), to benefit farmers.

The presentation included a classification of digital agriculture and discussed the challenges encountered while implementing Artificial Intelligence (AI) in agricultural practices. Dr. Srikanth emphasized the importance of various entities, such as Farmer Producer Organizations (FPOs), Self-Help Groups (SHGs), and agribusinesses, in facilitating the adoption of digital agriculture.

In conclusion, Dr. Srikanth underscored the urgent need to embrace digital tools to effectively address the threats posed by climate change to agriculture and food security. His insights shed light on the potential of digital integration in agriculture and its capacity to enhance sustainability, productivity, and resilience in farming practices.

The Chairman of the session extensively discussed the economic impact of climate change on agriculture in developing nations. He underscored the urgency of leveraging technology to create improved market and advisory systems to address the challenges posed by climate change in the agricultural sector.

The actionable points out of this session are:

- Adoption of climate-resilient Smart agriculture: The session emphasized the importance of farmers embracing advanced technologies, efficient water management techniques, and greenhouse gas emission management strategies developed by ICAR to ensure climate-resilient and sustainable agriculture.
- Promotion of Good Manufacturing Practices (GMP) in agribusiness: Promoting GMP to reduce carbon emissions, meet sanitary and phytosanitary requirements, and utilize agro-climatic conditions. It also emphasized the introduction of climate-resilient crop varieties and the implementation of essential policies.
- Game-changing policies for productivity and climate change mitigation: The session stressed the necessity of implementing impactful policies that enhance agricultural productivity and effectively address the challenges posed by climate change, including the adoption of efficient greenhouse technology.
- Utilizing AI in agriculture: Prioritizing the application of Artificial Intelligence (AI) in various aspects of farming, including crop monitoring, pest control, weather forecasting, drones, irrigation, satellite data analysis, and providing information to farmers.

- Addressing challenges and case studies: The session covered the challenges faced by AI in agriculture and showcased case studies of innovative technologies. It also focused on the efficient handling of agricultural goods among stakeholders in Farmer Producer Organizations (FPOs), Self-Help Groups (SHGs), and Agribusinesses.
- FPO digital implementation: The session shed light on how the digital implementation of Farmer Producer Organizations (FPOs) has piqued farmers' interest in agricultural production, highlighting the potential benefits of technology in transforming farming practices.



Technical session VI

Chairman : Dr. R.K. Mathur, Director, ICAR-IIOR
Co-Chairman: Dr. M. Sheshu Madhav, Director, ICAR-CTRI
Rapporteurs : Ms. N. Kavya, Assistant Professor, AHS, VFSTR
Ms. M. Kalyani, Assistant Professor, AHS, VFSTR

A total of three invited papers were presented during this session.

1. Climate Resilient Oil Seed Crops: Approaches, Technologies and Future Prospects

-Dr. R. K. Mathur

In his presentation, Dr. R. K. Mathur, Director of ICAR-Indian Institute of Oilseeds Research, discussed the reasons behind low oilseed productivity, including a significant portion of rainfed cultivation and cultivation on marginal and sub marginal lands. He emphasized the urgent need to change seed varieties and improve farmer-state linkages to achieve better seed replacement rates.

Dr. Mathur also highlighted the importance of climate-resistant technologies, particularly for soybean, gram, and oilseeds, to address the challenges posed by climate change. He discussed how climate change can lead to yield reductions and price increases and emphasized the need to tackle issues like rising import bills, shrinking land availability, and emerging pests in the oilseed sector.

Furthermore, Dr. Mathur emphasized the utilization of plant genetic resources and provided insights into the status of oilseed germplasm collections and traits for pyramiding in various oil crops.

The presentation explored various strategies for Smart agriculture aimed at enhancing oil production. These strategies included harnessing root architecture, drought screening, improved agronomic practices, and the utilization of nano-micronutrients. By adopting these innovative approaches, the oilseed sector can improve productivity and contribute to meeting the growing demand for edible oils sustainably.

2. Climate Smart Interventions for Sustainable Tobacco Production

-Dr. M. Seshu Madav

Dr. Seshu Madav, Director of ICAR-Central Tobacco Research Institute (CTRI), presented on the current scenario of tobacco production, with a focus on the cultivation of FCV (Flue-Cured Virginia) type tobacco in Guntur, covering an extensive area of 1.4 lakh hectares in India.

Dr. Madav emphasized the importance of specific soil conditions, such as sandy loam, and well-distributed rainfall for successful tobacco cultivation. He also discussed the impact of high temperatures on the quality and production of tobacco.

To address the challenges posed by climate change, Dr. Madav outlined various climate-resistant interventions, including the use of climate-tolerant tobacco varieties, improved agronomic practices, rainwater harvesting, dense planting, and moisture conservation techniques. He also highlighted the adjustment of fertilizer doses and the incorporation of labor-saving technologies.

Notably, these interventions have led to significant achievements, including increased production and a doubling of farmer income.

Furthermore, Dr. Madav shared CTRI's initiatives for climate-Smart villages, demonstrating their commitment for promoting sustainable agricultural practices. Additionally, the institute plans to expand its mandate to include the cultivation of additional crops like chilli, turmeric, and castor, further contributing to the region's agricultural diversification and climate resilience efforts.

3. Millets Processing and Value Addition: An Alternative Way to Meet Climate Smart Agriculture for Transforming Food Security to Nutritional Security

-Dr. P.S. Rao

Dr. P.S. Rao, Professor and Head of Agri-Food at IIT Kharagpur, focused on millet processing and value addition, shedding light on the nutritional benefits of these grains and the challenges posed by low market prices.

Dr. Rao highlighted the numerous health benefits of millets, which are rich in proteins, antioxidants, and vitamins, and their suitability as gluten-free food options. Despite these advantages, he addressed the lack of farmer interest in millet cultivation and identified challenges in millet processing, including anti-nutritional factors, short shelf life, and inadequate processing techniques.

To address these challenges, Dr. Rao discussed machinery-based processing methods and their potential in improving millet storage stability, utilization, and the production of various millet-based products, such as snacks, bakery items, and beverages.

In conclusion, Dr. Rao emphasized the necessity for technological advancements and solutions to promote millet production. He encouraged the inclusion of millet meals in daily diets to not only improve nutrition but also to create a market demand that benefits farmers and promotes the sustainable cultivation of these highly nutritious grains.

In the session, the chairman highlighted the importance of millets in the context of climate change. He emphasized how millets can serve as climate-resilient crops, well-suited to withstand the challenges posed by changing climatic conditions.

Furthermore, the chairman mentioned the concerning trend of decreased crop yields in different oilseed crops attributed to the impact of climate change. This underscores the urgent need for developing and adopting climate-resilient varieties to ensure sustainable oilseed production.

- Increasing variety seed replacement rates: It is crucial to enhance variety seed replacement rates each year to establish better linkages between farmers and research stations. This would lead to the adoption of improved and climate-resilient crop varieties.
- Impact of reduced oilseed cultivation: The increased import of oil is a consequence of the shrinking land area dedicated to oilseed cultivation, influenced by climate change, and the adoption of dryland farming practices for oilseeds.
- Adjusting fertilizer doses: To mitigate fertilizer losses caused by leaching, adjustments in fertilizer doses are essential to ensure effective nutrient utilization and reduce environmental impact.
- Need for climate-resilient FCV tobacco varieties: In the face of changing climate conditions, there is a demand for Flue-Cured Virginia (FCV) tobacco varieties with

traits like shorter duration and uniform maturity. Ensuring a consistent supply of such seeds to farmers is crucial.

- Climate-Smart villages: CTRI has taken the initiative to adapt five villages under the Prime Minister Kaushal Vikas Yojana (PMKVY) to make them climate-Smart, demonstrating efforts to promote sustainable practices and resilience in agriculture.
- Concentrating on millet processing: To encourage millet cultivation among farmers, there is a need to concentrate on millet processing. This would create value addition and promote the adoption of these climate-resilient crops.



Technical session VII

Chairman : Dr. Alapati Satyanarayana, Former Director of Extension, ANGRAU
Executive Director, Sangam Seeds

Co-Chairman : Dr. Y. Ashoka Rani, Former Professor & Head,
Dept. of Crop Physiology, Agricultural College, Bapatla, ANGRAU

Rapporteurs: Dr. S. Ayyanna, Assistant Professor, AE, VFSTR.
Mrs. K. Himabindu, Assistant Professor, AHS, VFSTR.

During this session, six oral presentations were delivered, and the key points that emerged from these presentations were as follows:

- Formulation and Development of efficient technologies for better resource conservation.
- Assessment and quantification of major cropping systems for green gas emission and to contain potential emitting forces (E.g., Methane, NO and CO₂).
- Exploring the potential of biochar in rice cropping systems to enhance the soil physico-chemical properties and better crop productivity.
- To establish the prominent rice-wheat system as carbon negative to reduce the environment footprint of agriculture.



Technical session VIII

Chairman : Dr. S.R. Niranjana, Former Vice Chancellor of Gulbarga University

Co-Chairman : Dr. B. Sarath Babu, Former Principal Scientist and Head,
ICAR-NBPGR, Regional Station, Hyderabad, President, PPAI

Rapporteurs : Ms. N. Venkata Vyshnavi, Assistant Professor, AHS, VFSTR
Ms. Ananya, Assistant Professor, FT, VFSTR

Six oral presentations were presented in this session. The points emerged from their presentations were.

- There is a need for development of more eco-friendly cost-effective sprayers and make them available for farmers.
- Robotics application in the field of agriculture to fulfill different on farm practices reduce the efforts of farmers making agriculture more efficient.
- Screening of varieties tolerant to different biotic and abiotic stresses to develop varieties tolerant to changing climate is needed.

Day 3: 29th March 2023

Technical session IX

- Chairman** : Dr. M. K. Naik, Director of Extension, UAS, Raichur
Former Vice Chancellor, UAHS, Shivmogga
- Co-Chairman** : Dr.T.V. Satyanarayana, Former Dean (Agril. Engineering) and Registrar,
ANGRAU. Registrar, MNR Educational Trust
- Rapporteurs** : Dr. T. Prabhakar Rao, Assistant Professor, AE, VFSTR
Ms. P. Amrutha Varshini, Assistant Professor, AHS, VFSTR

During this session, three keynote and invited papers were delivered.

1. Aflatoxin Contamination of Food Commodities and its Sustainable Management: A Global Concern

- Dr. M. K. Naik

Dr. M. K. Naik, Director of Extension, UAS, Raichur Former Vice Chancellor, UAHS, Shivmogga, presented on several key topics. He discussed the 5-year projections for the Agricultural GDP growth rate taking into account the changing agricultural landscape. Additionally, he emphasized the importance of food security, focusing on the aspects of healthy, safe, high-quality and sufficient food.

Moreover, Dr. Naik shed light on the impact of mycotoxins on both humans and animals, and he explored cost-effective techniques for detecting these mycotoxins in maize, chilli and groundnut. In closing remarks, he stressed that while complete eradication of plant diseases might not be feasible, they can be effectively managed through the adoption of Good Agricultural Management Practices.

2. Systems Approach and Investment Planning to Mainstream Climate Smart Agriculture under Drylands

- Dr. Shalander Kumar

Dr. Shalander Kumar, Deputy Global Research Program Director for Enabling Systems Transformation at ICRISAT, emphasized the significance of institutional interventions at the village level, necessitating the adoption of cutting-edge technologies. He discussed the importance of whole farm modeling, which assesses sustainability from the farm to the landscape and value chain, enabling precise identification of requirements, action planning, and development strategies.

Dr. Kumar also shed light on the concept of contingent crop planning, utilizing weather-Smart technology to optimize agricultural practices based on weather conditions. Furthermore, he underscored the vital role of district-level day-to-day action plans in promoting climate-Smart agriculture among farmers, ensuring effective climate change adaptation and mitigation strategies.

3. Agricultural Drainage for Improving Soil Health

-Dr. T. V. Satyanarayana

Dr. T. V. Satyanarayana, Former Dean (Agril. Engineering) and Registrar, ANGRAU, Present: Registrar i/c, MNR Educational Trust presented statistical data on twin challenges of water logging and salinity in India and specifically in Andhra Pradesh. He highlighted the

significance of proper drainage systems in farmlands to address these issues and maximize water productivity.

Furthermore, Dr. Satyanarayana discussed the classification of saline soils based on their electrical conductivity (EC), pH, and exchangeable sodium percentage (ESP) values, providing insights into their characteristics and management strategies.

In conclusion, he emphasized the need for technological interventions to identify lands affected by drainage problems and transform them into cultivable farmlands, ensuring sustainable agriculture practices and effective land utilization.

The session chairman expressed the opinion that food security can only be achieved through the implementation of sustainable and effective management practices. The papers presented in this session primarily focused on:

- Aflatoxins present in grains and fruits lead to seed decay and cause damage to both human and livestock health.
- The application of whole farm modeling using a systems approach promotes sustainability and integrated agro-system strategies for developing climate-Smart action plans at the village level.
- The adoption of climate-Smart agriculture technologies over traditional farming methods has reduced the yield risk in drought-affected regions of Telangana
- Unfortunately, drainage has not received as much attention as irrigation from both individuals and governmental agencies.
- Surface drainage, subsurface drainage, or a combination of both have been proven to be the most effective and viable solution to the twin problems of waterlogging and salinity.



Panel Discussion I

Strategic Approaches towards Developing Climate Smart Landscapes and Food Systems

Chairman : Dr. Shalander Kumar, Deputy Global Research Program Director, Enabling Systems Transformation, ICRISAT

Moderator : Dr. T. Ramesh Babu, Dean, SAFT, VFSTR

Panelists : 1) Dr. Alapati Satyanarayana, Executive Director, Sangam Seeds
2) Sri Kakamunu Sambasiva Rao, Vice President, NRI Seeds, Guntur
3) Sri A. Venkata Ram, General Manager, NRI Seeds, Guntur
4) Sri N.V. Krishna, Executive Director, Dasarad Prasad Fertilizers Pvt. Ltd.
5) Dr. KPC Rao,
6) Dr. Y. Vara Prasad

Rapporteurs: 1) Dr. A. Aruna Kumari, Assistant Professor, AHS, VFSTR
2) Ms. Madhuri, Assistant Professor, FT, VFSTR

The panel discussion Chairman Dr. Shalander Kumar shared insights on climate-Smart landscapes and food systems, emphasizing three crucial aspects: enhanced food safety, climate-resilient agriculture with reduced emissions, and the promotion of agribusiness to support climate-Smart food systems. He highlighted the importance of aligning crop and farming systems with natural resources. Socio-economic conditions and market demands.

The discussion commenced with the chairman's valuable remarks, encouraging active participation from all panelists, including farmers, industrialists, and scientists. Throughout the discussion, various recommendations were made, and the following were agreed upon:

- The once successful genotypes of the 90s are now facing new diseases due to the deterioration of soil health and changing climate. Consequently, there is a pressing need to develop climate-resilient crop varieties and implement sustainable agricultural practices.
- By focusing on reduced emissions and promoting social forestry, the agriculture sector can play a significant role in mitigating global warming.
- It is essential to distinguish between increased productivity and optimized productivity, encouraging farmers to adopt resource-efficient practices for better outcomes.
- An evaluation of current land use practices is imperative to identify areas for improvement, fostering the development of a climate-Smart landscape.

To achieve a climate-Smart landscape, it is crucial to adopt practices that enhance soil health, conserve water, reduce greenhouse gas emissions, and protect biodiversity.

- Building such a landscape necessitates collaboration among various stakeholders, including farmers, local governments, and civil society.
- Engaging stakeholders actively can help identify local priorities, devise effective strategies, and garner support for implementation.

- Increased awareness and availability of customized fertilizers can promote both intensification and sustainability in agriculture.
- Developing location-specific customized fertilizers based on soil testing is essential to meet the unique needs of different regions.
- Encouraging optimized fertilizer usage, alongside post-emergent herbicide application, enhances fertilizer use efficiency.
- Bridging the gap between stakeholders and agricultural experts can be achieved through efforts to improve farmers' literacy rates and facilitating regular farmer-expert meetings.

During the closing statements, the panelists emphasized the importance of identifying key climate-related challenges specific to the local context. They highlighted that climate change can present itself in various ways, such as temperature variations, alterations in rainfall patterns, and occurrences of extreme weather events, all of which can vary from region to region.

Assess current land use practices: The task involves assessing and evaluating current land use practices, aiming to identify areas that require improvement. This evaluation process will play a pivotal role in developing a climate-Smart landscape that fosters sustainable and environmentally conscious practices.

Engage stakeholders: Effective engagement with stakeholders is crucial for constructing a climate-Smart landscape and food system. This collaboration should involve farmers, local governments, and civil society, ensuring collective support and commitment towards sustainable and climate-resilient practices.

Incorporate agro ecological principles: By incorporating agro ecological principles, food systems can be transformed into sustainable and resilient systems that effectively combat climate change, foster biodiversity, and provide equitable livelihoods.

Adopt innovative technologies: Embracing innovative technologies is essential for constructing climate-Smart landscapes and food systems. These technological advancements hold significant potential in addressing environmental challenges and promoting sustainable agricultural practices.

Promote policies that support climate-Smart practices: Encouraging policies that endorse climate-Smart practices can play a pivotal role in incentivizing and supporting their widespread adoption. Government initiatives and regulations can create a conducive environment for sustainable agriculture and contribute to climate change mitigation efforts.

This entails promoting policies that advocate for sustainable agriculture, renewable energy utilization, and effective management of natural resources. Such policies are vital in fostering environmentally conscious practices and enhancing resilience to climate change impacts.

Monitor and evaluate progress: Regular monitoring and evaluation are essential for gauging the progress of implemented strategies and ensuring their efficacy in adapting to evolving conditions. This iterative process enables timely adjustments and improvements to enhance the overall effectiveness of climate-Smart initiatives.



Panel Discussion II

Farmers level Strategies for promoting Climate Smart Agriculture

Chairman : Dr. Y. Venkateswara Rao, Chairman Rythu Nestham

Co-Chairman: 1) Mr. N. Parthasaradhi, Tech turned Farmer, Ananthapur
2) Dr. M. Mohan Reddy, Progressive Farmer, Chittoor

Panelists : 1) Sri M.C.V. Prasad, Tirupati
2) Sri Sri Hari, Narakoduru
3) Sri Sai Poornachand, Tenali
4) Sri O. Raghavaiah, Vejjandla
5) Sri Jonna Sambasiva Rao, Sekuru
6) Sri Mattupalli Pothuraju, Suddapalli
7) Sri Umamaheshwara Rao, Vadlamudi
8) Sri Ankamma Reddy, Penumaka
9) Sri Devarapalli Satish babu, Selapadu

Rapporteurs: Ms. K. Sravya, Assistant Professor, AHS, VFSTR

Dr. Y. Varaprasad, Assistant Director, AHS, VFSTR

The panel discussion Chairman addressed the concerning state of the balance of nature. citing the escalating global climate warming, increased earth temperatures, and decreased rainfall as a result, suffering from the adverse impacts of droughts, floods, and crop losses, leaving farmers despondent and discouraged from continuing agriculture. The Chairman expressed concern about the implications of such circumstances on the country's future and progress.

The panel discussion commenced with the Chairman's insightful remarks, which spurred active participation from all panelists, including farmers, industrialists and scientists and arrived at the following recommendations:

- Farmers continuously face yield losses in crops due to natural calamities like cyclones, floods, and climate aberrations such as uneven rainfall patterns and temperature fluctuations. Additionally, pest and disease epidemics further exacerbate the challenges.
- Climate change has a detrimental impact on the economic growth of farmers, leading to a loss of interest in farming and a rise in suicides and suicidal attempts due to the exponential risk factor associated with climate vagaries.
- The increase in temperature has led to a reduction of 12.8 percent in crop production. While decreasing rainfall has resulted in a decline in groundwater resources. Storage facilities need improvement to ensure better crop preservation.
- The current crop insurance provided by the government to farmers under natural calamities is inadequate. It is crucial to enhance the scale of compensation to alleviate the financial losses incurred by farmers.
- To achieve sustainable agriculture and economic well-being for farmers, the extension systems under ICAR, KVKs, State Agricultural Universities, and NGOs should actively guide farmers towards organic and integrated farming approaches.

- The Minimum Support Price (MSP) for location-specific crops should be increased. Considering the variations in climate from one location to another.
- Incorporating millet crops into existing cropping patterns can improve the quality of food systems and reduce farmers' risks, as millet crops require low inputs and have a short duration.
- Emphasizing organic farming with a focus on livestock can enhance soil and crop health, ensuring sustainable agricultural practices
- Farmers should plan for value addition through their crops to attain higher incomes and increase the overall progress of villages.
- The wages of agriculture workers in farming are affected by MSP prices in the market highlighting the need for fair pricing policies
- Management practices in crops should consider climate variations and be planned accordingly to mitigate climate risks.
- Mechanization in agriculture should be prioritized to address labor scarcity and improve efficiency.
- Human resources should be actively involved in agriculture to ensure sustainability and prosperity.
- Farm ponds should be developed on each farmer's field or through community approaches to enhance water management and irrigation.
- Research should focus on minor millets to encourage farmers to grow them with confidence.
- Farmers should carefully consider all aspects, from seed cost to market demand, when selecting crops for cultivation.



Valedictory session

Chairman: Dr. M.K. Naik, Director of Extension, UAS, Raichur and Former Vice Chancellor, UAHS, Shivamogga

Distinguished guest: Prof. P. Nagabhushan, Hon'ble Vice Chancellor, VFSTR

Co-Chairman: Dr. T. Ramesh Babu, Former Dean of Agriculture, ANGRAU & Dean School of Agriculture and Food Technology, VFSTR
Dr. N. Narayan Rao, Associate Professor and Head Applied Engineering, VFSTR

Dr. M. K. Naik, the Chairman of the Valedictory Session, commenced the proceedings by inviting the rapporteurs of the 11 technical sessions to present the highlights of the discussions held during the three days of the GCCSA from March 27th to 29th. He congratulated all the rapporteurs for their excellent compilation of the technical sessions. Dr. Naik then requested Dr. Y. Ashoka Rani, a member of the Board of Studies at AHS, VFSTR, to provide her feedback on the program.

In her feedback, Dr. Ashoka Rani praised Dr. T. Ramesh Babu, the Conference chair, for his outstanding organization of the conference. She acknowledged his dedication over the year in bringing together delegates from esteemed organizations worldwide on one platform. Dr. Ashoka Rani emphasized the importance of providing farmers with reliable rainfall information to aid them in planning their crops effectively. She suggested that farmers would be more receptive to innovative systems created by institutions if they were demonstrated successfully through implementation in specific adopted villages by the institute. Additionally, she highlighted the potential of submitting strategies and ideas derived from GCCSA to government institutes as recommendations for the benefit of farmers.

Dr. N. Narayan Rao, Associate Professor, and Head of Applied Engineering at VFSTR stressed the need to enhance mechanization systems in agricultural lands, particularly focusing on pre and post-harvest technologies for further improvement. He emphasized the significance of utilizing the knowledge gained from the three-day conference to bridge the gap between farmers' income generation and climate protection, considering it a collective responsibility.

Dr. T. Ramesh Babu, the former Dean of Agriculture at ANGRAU and currently the of the School of Agriculture and Food Technology at VFSTR, shared his perspective on farmers, describing them as SMART individuals. Each letter in the word "SMART" represented specific qualities: S for Simple, M for Morals and ethics, A for Accountable, R for Responsible, and T for Transparent. Dr. T. Ramesh Babu stressed the significance of integrating Smart technologies to address the unpredictable climate challenges faced by farmers.

He further mentioned that the Global Conference on Climate Smart Agriculture generated valuable recommendations by inviting distinguished speakers from around the world and international organizations, with the support of the Hon'ble Vice Chancellor and university

management. These recommendations would be forwarded to the government for consideration.

Dr. T. Ramesh Babu expressed his gratitude to the Department of Agricultural and Horticultural Sciences and the faculties of Applied Engineering and Food Technology for their active participation in the conference.

Dr. Syed Irshan, Coordinator of Food Technology at VFSTR appreciated Dr. T. Ramesh Babu's efforts in fostering collaborative work between Agriculture and Food Technology. He expressed his privilege in being a part of this conference and highlighted the value of knowledge transfer and policy updates provided by experts from various institutions and universities, which were thought-provoking. Dr. Irshan also commended the team efforts of the Department of AHS and the School of SAFT in organizing the program. Moreover, he extended his gratitude to the Honorable Vice Chancellor for providing a platform for growth and learning.

Prof. P. Nagabhushan, the Vice Chancellor of VFSTR, extended his heartfelt congratulations to Dr. T. Ramesh Babu and his team for the successful organization of "The Global Conference on Climate Smart Agriculture." He commended the fruitful execution of the academic event, as well as the inclusion of cultural activities at the end of day one and two, adding a touch of diversity and enrichment to the conference.

Prof. P. Nagabhushan emphasized the crucial need for implementing an insurance mechanism for all farmers, drawing inspiration from the wisdom of Chanakya. He also highlighted the significance of adopting cooperative farming practices, similar to those followed in the United States, as a viable solution by our government.

To ignite the imagination and inspire students, Prof. Nagabhushan presented a technological concept involving drones designed to be similar in size to bees. These drones could release pheromones to guide other bees, thus modulating pollination in a desired direction. This innovative idea exemplified the potential of technology in addressing agricultural challenges.

The Vice Chancellor also emphasized how this conference played a significant role in nurturing the imagination and problem-solving abilities of the young participants, symbolizing the hope for a better future.

Dr. M.K. Naik, the Chairman, expressed his deep appreciation for Prof. Nagabhushan's enthusiastic remarks, which sparked great interest and inspiration among the young scientists and attendees.

Dr. M.K. Naik commenced the valedictory session by announcing and distributing awards to the winners of the poster presentation and oral presentation. He congratulated and appreciated the Honorable Vice Chancellor of Vignan University and the Conference Chair, Dr. T. Ramesh Babu, for their exceptional leadership in successfully organizing the Global Conference on Climate Smart Agriculture, all within a short period since the establishment of the B.Sc. (Hons.) Agriculture degree program.

Dr. M. K. Naik expressed his heartfelt gratitude for the warm hospitality extended to the delegates and dignitaries throughout the conference. He applauded the enthusiastic involvement of all the faculty members in organizing the program and acknowledged the availability of resources, the academic ambiance, and the courage and confidence displayed during the event.

Reflecting on India's remarkable achievements over the past seven decades, Dr. M.K. Naik acknowledged the country's transformation from a nation reliant on food imports to becoming a wheat exporter to the same countries it once borrowed from. He emphasized the pivotal role played by "farmers' will, political will, and scientific skill," as highlighted by Dr. M. S. Swaminathan, in the success of the Green Revolution. Dr. M. K. Naik also underscored the significance of the Food Security Act enacted by India, aiming to provide food to a population of 80 crores through the Public Distribution System. The agriculture sector's importance, especially during the challenging times of the COVID-19 pandemic, was also emphasized.

Dr. M. K. Naik shed light on the impact of climate change on crop production, citing examples of wheat, chickpea, and mango, as well as the sudden outbreak of black thrips in chilli. He stressed the timeliness and necessity of conducting the Global Conference on Climate Change in Agriculture to address these pressing issues. He commended the gathering of stakeholders, farmers, researchers, and representatives from various departments, unified in a technical session to develop actionable plans.

Praising Dr. Lavu Rathaiah, the Founder of Vignan University, for the innovative concept of a multidisciplinary university, Dr. M.K Naik highlighted that the New Educational Policy also advocates for such institutions to encourage cross-fertilization of ideas among different sectors. He emphasized the importance of agriculture by advocating for a shift from STEM to STEAM (Science, Technology, Engineering, Agriculture, and Mathematics).

Dr. M. K. Naik also stressed the need to address nutritional security to combat issues related to malnutrition, hidden hunger, and increasing germ diseases. He urged young agriculturists and scientists to contemplate the urgent needs that must be addressed in the future through sustainable farming methods. This, he believed, would pave the way for a brighter and more resilient future for agriculture in India.

On behalf of the organizing committee and the Department of Agricultural and Horticultural Sciences, Dr. T. Naresh, Coordinator of AHS Department, extended his heartfelt gratitude to all the distinguished guests, esteemed speakers, researchers, farmers, students, and delegates who graced "The Global Conference on Climate Smart Agriculture" with their presence and active participation.

Dr. Naresh, expressed his special thanks to Honorable Vice-Chancellor, Professor P. Nagabhushan, for his unwavering support and encouragement throughout the conference and for his visionary leadership that has been instrumental in making this event a resounding Success.

Dr. Naresh, extend his sincere thanks to Dr. T. Ramesh Babu, the Conference Chair, for his exceptional dedication and meticulous planning that ensured the smooth execution of his exceptional every aspect of this conference.

Furthermore, he acknowledged the efforts and hard work put in by all the faculty members, researchers and volunteers, whose tireless endeavors played a crucial role in making this conference a grand success.





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**Proceedings of the International Conference on “Plant Health in Asia:
Research Priorities and Partnerships”
17th to 18th December, 2024**



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The Department of Agricultural and Horticultural Sciences (AHS), Vignan's Foundation for Science Technology and Research (VFSTR) organized " **International Conference on "Plant Health in Asia: Research Priorities and Partnerships "** on 17th - 18th December, 2024, at VFSTR (Deemed to be University), Vadlamudi, Guntur in collaboration with Asia-Pacific Association of Agricultural Research Institutions (APAARI), and European Plant Health Research and Coordination III (EUPHRESKO III), knowledge partners International Crops Research Institute for the Semi-Arid tropics (ICRISAT), Centre for International forestry Research (CIFOR), World Agroforestry, Centre for Agriculture and Bioscience International (CABI), Indian Phytopathological society, Acharya N.G. Ranga Agricultural University (ANGRAU), Dr. Y.S.R. Horticultural University (YSRHU), Plant Protection Association of India (PPAI). The two day programme was organized in six technical sessions and 2 key note sessions besides inaugural session, two panel discussion sessions and valedictory session.

Prelude:

The two-day event of the International Conference was organized with an intention to congregate the experts in the field of —Plant Health in Asia: Research Priorities and Partnerships to establish better connections in the field of Plant Health Research. The conference's key objective was to identify and prioritize critical plant health issues while fostering the development of potential partnerships aimed at addressing these challenges. By focusing on the identification of key plant health concerns, the conference aimed to promote collective action and innovative solutions. Moreover, it emphasized the importance of building strong partnerships between researchers, policymakers, industry leaders, and farmers to effectively tackle plant health issues on a global scale.

The conference holds great importance as it serves as a platform for bringing together policymakers, academicians, researchers and development institutes, industry, and farmers to the field. The primary purpose is to meet global food security challenge demands, feeding two billion more people by 2050, which requires innovations in plant health research to protect crops from pests and diseases. Pests currently cause 20-40% of global crop yield losses, costing \$290 billion annually. Healthy crops are crucial for sustaining agricultural trade, ensuring compliance with international standards, and maintaining market access. Poor plant health can lead to trade restrictions and economic losses. Thus, effective plant health management is essential for global food security and competitive trade. The six sessions are organized around five sub-themes: i) Molecular Breeding and Gene Editing Approaches for Biotic Stress, ii) Changing pest scenario, Epidemiology, Forecasting & Monitoring in relation to Climate change (Insect pests), iii) Changing pest scenario, Epidemiology, Forecasting & Monitoring in relation to Climate change (Plant Diseases), iv) Sanitary, Phytosanitary and Quarantine Regulations, v) Artificial Intelligence and IoT for Plant Health Management.

During the conference, a total of 22 invited papers (6 Keynote and 16 Lead) and 19 oral presentations were presented across various sessions. Additionally, 8 abstracts were displayed for poster presentations, adding to the wealth of knowledge shared. Furthermore, the conference featured two panel discussions focusing on: i) Panel Discussion of Farmers, ii) Panel Discussion of Industries. The recommendations from each session are summarized below.

Day 1: 17th, December 2024

Inaugural session

The inaugural session started with inviting the dignitaries on to the dais; Dr. T. Ramesh Babu, Dean School of Agriculture and Food Technology, Vignan's Foundation for Science Technology and Research (VFSTR), Dr. M. Malakondaiah, Former Director General of Police, A.P. & Member, Executive Council, VFSTR, Dr. Ravi Khetarpal Executive Director, Asia - Pacific Association of Agricultural Research Institutions (APAARI), Bangkok; Dr. Baldissera Giovani Coordinator, European Plant Health Research and Coordination (EUPHRESKO III); Dr. K. S. Varaprasad Project Manager (USDA- SPS Project) APAARI & Former Director, ICAR-IIOR, Hyderabad, Dr. Lavu Rathaiah Hon'ble Chancellor, VFSTR & Chairman, Vignan Group of Institutions; Col. Prof. P. Nagabhushan Hon'ble Vice Chancellor, VFSTR; All the dignitaries had stepped forward to light the lamp. Dr. T. Ramesh Babu, Dean SAFT, VFSTR and Organizing Committee Chair enlightened about the purpose of the International Conference on —Plant Health in Asia: Research Priorities and Partnerships-2024.



Dr. Babu expressed his immense pride and great honour in extending a warm welcome to all attendees of the International Conference on “Plant Health in Asia: Research Priorities and Partnerships” and outlined the conference's agenda, which focuses on innovating and promoting sustainable agriculture models aimed at enhancing nutritional security and fostering economic prosperity. Additionally, he highlighted the initiation of consultancy services designed to empower farmers and entrepreneurs by establishing resilient agroforestry systems and integrating traditional wisdom and also emphasized the state government's vision to transition 6 million farmer households and 2 million landless workers in Andhra Pradesh by 2035. Encouraging all participants, he urged them to actively engage in the conference, leveraging this unique opportunity to exchange knowledge, collaborate, and contribute to the advancement of plant health research and practices.



Dr. M. Malakondaiah, Former Director General of Police, A.P., & member, Executive Council, VFSTR, expressed gratitude to all the delegates and dignitaries who made the effort to attend the conference, emphasizing that Dr. Ravi Khetarpal is an expert, and it is a privilege for him to have him as Conference Chair. It was hoped that the discussions taking place would be beneficial to the farming community.



Dr. Ravi Khetarpal, Executive Director, Asia-Pacific Association of Agricultural Research Institutions (APAARI), Bangkok, Chairman of the Global Forum on Agricultural Research (GFAR), mentioned that APAARI was established by the FAO of the United Nations about 35 years ago and is now seeking its own independent legal status as an intergovernmental organization (IGO) in Thailand. The organization works with the mission of improving agri-food research and innovation systems in Asia and the Pacific. Emphasizing the global projects undertaken by APAARI, Dr.

Ravi noted that another key point for the organization is its involvement in the world of agroecology, in partnership with Rythu Sadhikara Samstha (RySS), Govt. of A.P., India, which was also highlighted. Dr. Ravi expressed confidence that they are on the verge of achieving something great. Commending Vignan University, Dr. Ravi acknowledged its great potential. Having served on the school research board, he has seen firsthand the efforts being made beyond capacity. He noted that Vignan University excels in areas where no other institution competes, giving it a unique selling point. Dr. Ravi is confident that the university will continue to move forward and achieve its goals. Despite being located in a corner of Guntur, Vignan University is steadily making its mark on the international map and is poised to gain global recognition through numerous collaborations and high-quality research.



Dr. Baldissera Giovani, Coordinator, European Plant Health Research and Coordination (EUPHRESKO III), expressed his profound happiness, stating that standing in front of the audience as a representative of EUPHRESKO was a great honour, and expressed his gratitude for hosting the event in such a beautiful location full of young people, who represent the next generation of talented professionals to be guided by the professors who possess today's knowledge. Dr. Baldissera shared that he felt a sense of disconnection between people, which is why EUPHRESKO III has emerged. EUPHRESKO III is a global phytosanitary research coordination initiative that spans different countries and regions, including South East Asia. Emphasizing that, in his view, global efforts refer to ensuring that all actors are represented and that all perspectives are considered in order to meet the diverse needs of various people and representatives from local authorities.



Dr. K. S. Varaprasad, Adviser, Biosecurity and Bioresources, expressed his gratitude towards Dr. Baldissera for accepting the proposal from Dr. Ravi Khetarpal to hold the conference this year and mentioned that it is very inspiring to work with EUPHRESKO. He stated that APAARI is extremely happy to collaborate with Dr. Baldissera's team. Dr. Varaprasad applauded the beloved Chairman of VFSTR, noting that he is not only an entrepreneur but also exemplifies excellence in performance in whatever he does. He expressed that VFSTR is the best host he has ever seen, offering all the necessary facilities, and he is extremely thankful. Dr. Varaprasad shared his pride in being associated with Dr. Vijay Kumar, highlighting that working with him has always provided an extra privilege whenever he travels to any country outside of India. Having visited 45 countries,

Dr. Varaprasad noted that they initiated the agro ecology program in Andhra Pradesh in collaboration with these countries, many of which are now working with global organizations. He acknowledged that this represents a significant opportunity for India and Asia, as the first two phases of EUPHRESCO were not global and were mostly confined to EUPHRESCO itself, while the third phase has expanded to a global scale. Dr. Varaprasad drew attention to the undeniable fact that the younger generation must possess professional competence and a strong commitment to managing such projects, as well as the essential infrastructure, laboratories, and human resources to lead the project and foster global networking.



Dr. Lavu Rathaiah, Hon'ble Chancellor of VFSTR & Chairman of Vignan Group of Institutions, praised the conference on plant protection as a commendable initiative in a sector where 60 percent of the population is engaged in agriculture. Even minor advancements in this field, he noted, could lead to significant improvements. The conference was expected to foster productive discussions, particularly in areas where small enhancements in production could create a substantial impact.

Dissatisfaction was expressed regarding previous loan policies that prevented farmers with four to five acres of land from securing loans. However, with the recent amendment by the RBI, loans can now be obtained without security. The feasibility of natural farming under current conditions was questioned, citing Sri Lanka as an example where government policies promoting natural farming resulted in failure and food shortages. The viability of natural farming was emphasized as dependent on production levels matching those of conventional methods, highlighting the necessity of scientific research and validation before widespread adoption. The importance of natural pest control methods was also underscored, as they could help address concerns about consuming contaminated food. Additionally, the role of IoT technology in enhancing agricultural management was highlighted.



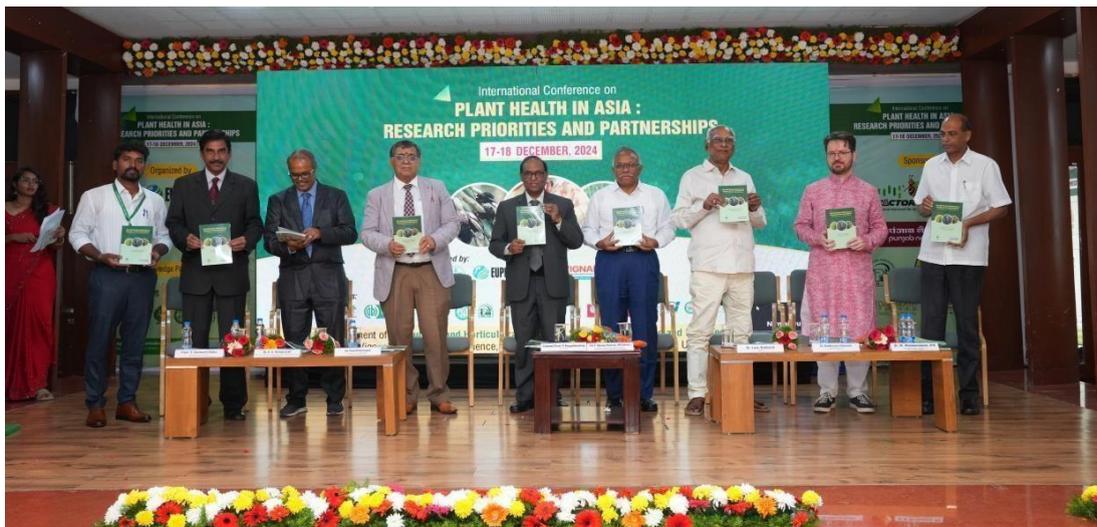
Dr. T. Vijay Kumar, IAS (Retd), Executive Vice-Chairman, Rythu Sadhikaraka Samstha (RySS) & Advisor, Department of Agriculture and Cooperation, Govt. of Andhra Pradesh, INDIA. In his address, he highlighted the significant growth of RySS, which started in 2016 with 40,000 farmers and has now reached 1 million participants statewide. He emphasized that natural farming progresses gradually and is a voluntary choice for farmers, contrasting it with Sri Lanka's abrupt elimination of chemical fertilizers and – “Natural Farming Mimics Nature to boost biodiversity, resilience, and planetary health while addressing the CLIMATE CHANGE”. He also noted farmers are natural scientists who experiment, learn, and lead transformative changes in agriculture. He cited remarkable benefits of natural farming, including increased yields, lower costs, and higher net incomes, beginning in the first year, illustrating its resilience to disasters, sharing examples of banana and cotton crops surviving floods while chemically farmed crops suffered extensive damage. He concluded his address with the inspiring statement, "Every farmer has the power to heal the planet."



Col. Prof. P. Nagabhushan, Hon'ble Vice Chancellor, VFSTR, expressed that he was wondering about maintaining plant health, stating that the reason for maintaining plant health is to increase yield and extract more from the plant. He highlighted that the Government of India has recognized the importance of acknowledging previous learning and the inherent knowledge gained by farmers in the field of agriculture, which is beneficial, and from their experiences, much valuable knowledge can be

gained, allowing them to be equated with diploma holders and reach greater heights. He highlighted that —Farming should be embraced as entrepreneurship, elevating its status and inspiring innovation while making it aspirational to attract youth and encourage women to see farmers as ideal life partners, driving rural prosperity.

The compendium for the conference and Book on Good Agricultural Practices (GAPs) in Palms (Coconut, Oil Palm and Palmyrah) was released by the dignitaries present on the dais.



Dr. T. Naresh, Coordinator, AHS, first and foremost expressed sincere appreciation to Dr. Vijay Kumar, IAS (Retd), for his inspiring presence and words of encouragement, which set the tone for the event. He extended his immense gratitude to Dr. Ravi Khetarpal, Chairman of the Conference, for his unwavering support. He expressed that the conference is going to be enlightening and thought-provoking and acknowledged his privilege to extend heartfelt gratitude to all

those who have graciously made time in their busy schedules to attend. To the esteemed speakers and panellists, he expressed that he is indebted to all the upcoming sole contributions, stimulations, discussions, and innovative perspectives. He stated that the expertise is going to elevate the quality of the conference and enrich our understanding. He extended his gratitude to all the sponsors and partners who have been instrumental in bringing the event to fruition. He extended a warm thanks to the Organizing Committee and Technical Committee for their dedication. He further stated to everyone that we should all carry the momentum forward and continue striving for excellence in respective fields.

Keynote Presentations

Chairperson: Dr. Ravi Khetarpal, Executive Director, APAARI, Bangkok.

Co- Chairpersons: 1) Dr. S. V. Ramana Rao, Principal Scientist (Agrl.Economics)
ICAR-IIOR, Hyderabad.

2) Dr. C. Kannan, Principal Scientist (Plant Pathology), ICAR-IIRR,
Hyderabad.

Rapporteurs: 1) Dr. Rajanand Hiremath, Asst. Professor, AHS, VFSTR

2) Dr. Pandu U., Asst. Professor, AHS, VFSTR

During this session, two prominent keynote presentations took center stage and captivated the delegates.

1. Plant Health in the Era of Agri-food Systems Transformation

- Dr. Ravi Khetarpal

Dr. Ravi Khetarpal, Executive Director of APAARI, Bangkok, delivered an insightful presentation titled "Plant Health in the Era of Agri-food Systems Transformation," addressing plant health challenges and opportunities in the Asia-Pacific region. He emphasized the growing importance of plant health in ensuring sustainable agricultural practices and food security.

The presentation outlined key objectives, beginning with the mitigation of pesticide residues to enhance food safety. He also stressed the need to improve trade opportunities through better residue management practices.

- A significant focus was on managing aflatoxin contamination to be addressed through the – “One Health Approach”. He also highlighted the need for improving phytosanitary trade compliance, particularly in Bangladesh.
- He discussed several ongoing projects aimed at addressing objectives like focuses on developing strategies to reduce pesticide residues in agricultural produce, aflatoxin management to ensure food safety and public health, and efforts to enhance phytosanitary standards. Building robust compliance frameworks to meet international standards was emphasized as a critical strategy. Capacity development was underscored as a cornerstone of plant health management.
- Dr. Ravi concluded by advocating for a 360-degree approach to capacity development, integrating research, policy, and practical interventions.

2. Plant Health Research Coordination: An International Endeavour

- Dr. Baldissera Giovani

Dr. Baldissera Giovani, Coordinator, EUPHRESKO III, delivered an enlightening presentation focusing on the current status of plant health research under European conditions. He provided an overview of the EUPHRESKO research and development landscape, emphasizing its role in advancing plant health through coordinated efforts. He highlighted the importance of focusing research on sustainable plant protection methods against pests and pathogens.

- The presentation shed light on the organizations, research institutes, academia, and industry networks actively engaged in plant health research. He also discussed recent

research initiatives, including the study of *Spodoptera frugiperda* (fall armyworm) invasion and associated pathogens in Europe.

- Building a global network under EUPHRESKO III was presented as a critical goal to make research more impactful. Further, he emphasized the need for a regional prioritization system to facilitate the engagement of stakeholders. He outlined the importance of aligning research with phytosanitary needs at various levels. Identifying and addressing these requirements at the national, regional, and global levels was deemed essential for effective plant health management. The role of international collaboration in combating plant health threats was underlined as a vital strategy.
- Dr. Giovani highlighted the benefits of building synergies between research and industry to advance practical solutions. The presentation emphasized the significance of proactive measures to prevent the spread of invasive species and pathogens and presented EUPHRESKO III as a model framework for fostering global cooperation.
- The presentation concluded with a call to expand EUPHRESKO III's global reach for better coordination and impact and for South East Asia to contribute by providing research expertise and political support to global phytosanitary research coordination.

Recommendations from the keynote presentation:

1. Advocate for the **One Health Approach** to manage aflatoxin contamination and pesticide residues, linking plant health to broader environmental, animal, and human health systems.
2. Enhance phytosanitary standards through capacity-building programs for farmers, exporters, and policymakers, ensuring compliance with international trade standards.
3. Establish frameworks similar to **EUPHRESKO III** in Asia to prioritize regional research needs, address pest and pathogen challenges, and foster collaboration across countries.
4. Build global networks linking Asian and European research efforts, focusing on shared challenges like the invasion of pests (e.g., fall armyworm) and emerging plant pathogens.
5. Facilitate collaborations between academia, industry, and policymakers to translate research outcomes into scalable, practical solutions.
6. Implement a **360-degree approach to capacity development**, integrating education, research, and extension services to equip stakeholders with the necessary skills and knowledge.
7. Establish regional centers of excellence for plant health research, focusing on local and global threats to agriculture.
8. Encourage partnerships between governments, research organizations, and the private sector to co-develop innovative solutions for plant health issues.
9. Invest in scalable technologies for sustainable agriculture and export-driven production systems.



Technical session I

- Chairman** : Dr. TVK Singh, Former Dean of Agriculture, PJTSAU, Hyderabad, Telangana State, India
- Co-Chairperson** : 1) Dr. B. K. M. Lakshmi, Principal Scientist & Head, MRS, Nuzvid.
2) Dr. K. Sireesha, Principal scientist (Ento.), Horticultural research station, Lam, Dr. Y.S.R. Horticultural University
- Rapporteurs** : 1) Dr. B. Srinivasulu, Asst. Professor, AHS, VFSTR
2) Dr. P. Praveen Kumar, Asst. Professor, AHS, VFSTR

During this session, three distinguished lead papers and one oral presentation took center stage and captivated the delegates.

1. Global Status and Effective Management Options for tackling the South East Asian Thrips, *Thrips parvispinus* (Karny, 1922)

- Dr. Sridhar V.

Dr. Sridhar V, Principal Scientist (Entomology), ICAR-IIHR, Bangalore, presented on the global status and management of the invasive pest *Thrips parvispinus*, a significant threat to horticultural crops such as chilli. He attributed its spread to globalization, climate change, and ineffective early detection, highlighting its severe economic impact, with yield losses exceeding 85% in affected areas.

- Management strategies emphasized an Integrated Pest Management (IPM) approach, including cultural practices, biological controls, and eco-friendly chemical treatments. He also noted the effectiveness of white traps for monitoring and control, stressing the need for collaborative research to fill knowledge gaps in the pest's bioecology.

2. An overview of fruit flies (Diptera: Tephritidae) of south and southeast Asia

- Dr. K. J. David

Dr. K. J. David, Senior Scientist, ICAR-NBAIR, Bengaluru, presented an overview of fruit flies in South and Southeast Asia, underlining their diversity and economic implications. With over 5000 species globally and around 330 identified in India, fruit flies like *Bactrocera dorsalis* and *Zeugodacus cucurbitae* were highlighted for their significant crop damage, particularly to fruits.

- Dr. K. J. David emphasized that *Tephritidae* not only infest fruits and leaves but also target shoots, such as with bamboo shoot flies. Additionally, some species within this family also attack weeds.
- Dr. David emphasized the importance of taxonomic and phylogenetic studies to address identification challenges and recommended sustainable pest management strategies, including male annihilation techniques and improved focus on natural parasitoids.

3. Mitigating threats from emerging insect pests in Bangladesh

-Dr. Nirmal Kumar Dutta

Dr. Nirmal Kumar Dutta, Chief Scientific Officer & Head, Entomology Division, Bangladesh Agricultural Research Institute (BARI), Gazipur 1701, Bangladesh, set forth that Bangladesh's rich biodiversity makes it highly vulnerable to invasive pest species, especially with the liberalization of global trade. Emerging pests like the fall armyworm (FAW), rugose spiraling whitefly, and bagworms have become major agricultural threats in recent years.

Dr. N. K. Dutta stressed that the indiscriminate use of chemical insecticides has worsened pest problems, leading to resistance development and environmental harm. However, biopesticides have emerged as a sustainable alternative, with over 109 brands now available in Bangladesh. The use of natural enemies like parasitoids and predators, combined with biopesticide-based technologies, has reduced chemical pesticide usage by 11.5% in 12 years. This progress reflects the country's commitment to adopting eco-friendly pest management practices.

Furthermore, challenges such as lack of awareness, inaccessibility of resources, and inadequate implementation of policies need to be addressed. Collaborative efforts among scientists and stricter enforcement of national and regional strategies are essential. Continued research and development, supported by governmental initiatives, will further strengthen Bangladesh's resilience against invasive pest threats.

4. Invasion of *Thrips parvispinus* in chilli ecosystem of Andhra Pradesh and its management.

- Dr. K. Sireesha

Dr. K. Sireesha, Principal Scientist (Ento.), Horticultural Research Station, Lam, Dr. Y.S.R. Horticultural University, underscored the importance of importance of destructive pest black thrips on chilli ecosystem of Andhra Pradesh and its management practices.

- She highlighted the pest's polyphagous nature, adaptability to diverse environments, and rapid reproduction, making it a significant agricultural threat. Originating from the Asian tropics, particularly Thailand, this pest has spread to regions like Southeast Asia, Northern Australia, India, and New Zealand.

- She also stressed on economic impact of thrips is significant, with up to 90% yield loss observed in some chilli-growing areas like Guntur, Palanadu, and Prakasam. Their damage is characterized by upward curling of leaves, browning, and reduced photosynthesis, particularly during rainy seasons.
- Dr. K. Shireesha emphasized the differences between *Scirtothrips dorsalis* and *Thrips parvispinus*.
- Dr. Shireesha suggested that control efforts for *Thrips parvispinus* should focus on the flowering and later stages of the crop, rather than targeting the pest from the beginning of the crop cycle.
- Dr. K. Shireesha elaborated the effective management strategies like Integrated Pest Management (IPM) approaches, combining cultural, biological, and chemical measures to minimize crop damage while ensuring environmental safety.

Recommendations from the Technical Session I:

1. Prioritize research on the bioecology, population dynamics, and ecological adaptations of invasive species like *Thrips parvispinus*, *Silba capsicarum*, and fall armyworm in diverse agroecosystems.
2. Develop and integrate advanced diagnostic tools, including molecular markers and remote sensing, for rapid identification and monitoring of emerging pests.
3. Expand studies on IPM strategies that combine cultural, biological, and chemical controls, focusing on pest-specific approaches like white traps for thrips and male annihilation techniques for fruit flies.
4. Investigate the interaction between host plants and pests, emphasizing breeding or engineering crop varieties resistant to pests and their associated viruses.
5. Promote the use of natural bioagents, such as parasitoids and predators, in combination with eco-friendly interventions like neem cake and reflective mulches.
6. Conduct detailed taxonomic studies of cryptic species and species complexes, such as the *Bactrocera dorsalis* complex, using morphological and molecular techniques.
7. Model pest outbreaks under different climate scenarios to predict and mitigate potential threats.
8. Strengthen collaborations among farmers, researchers, policymakers, and international organizations like CABI to enhance pest surveillance, exchange knowledge, and implement effective management strategies.
9. Facilitate workshops and training programs to raise awareness about pest management among stakeholders.





Concurrent Technical Session II

Theme: Molecular Breeding and Gene Editing Approaches for Biotic Stress

- Chairman** : Dr. Alapati Satyanarayana, Former director of Extension, ANGRAU & Present Executive Director, Sangam Seeds
- Co-Chairperson** : 1) Dr. D. Vijay Ramu, Dean PCF and Dean School of Biotechnology and Pharmaceutical Sciences, VFSTR
2) Dr. B. Kalyan Babu, Principal Scientist (Biotechnology), ICAR-IIOPR, Pedavegi, Andhra Pradesh
- Rapporteurs** : 1) Dr. P. Susmitha, Asst. Professor, AHS, VFSTR
2) Ms. V. Priyanka Raj, Asst. Professor, AHS, VFSTR

During this session, three distinguished lead and one oral presentation delivered valuable insights and research findings to the delegates.

1. Sustainable pulses production through plant health

-Dr. Alapati Satyanarayana

Dr. Alapati Satyanarayana, Former director former director of Extension, ANGRAU, and present executive director, Sangam Seeds, chaired the session and was the lead speaker, emphasizing the importance of sustainable pulses production.

- Discussed the low productivity of pulses due to agronomic, environmental, and socio-economic factors, addressing the stagnation in pulse production and outlining government policies aimed at enhancing output.
- Specific varieties of blackgram, such as LBG-645 and LBG-685, were highlighted, along with the damaging effects of Yellow Mosaic Virus (YMV) and the genetics of resistance to this disease.
- In relation to redgram, he pointed out the threats posed by *Helicoverpa* pod borer and diseases like wilt, advocating for alternative agricultural methods that avoid chemical use.

2. Molecular Breeding and Gene Editing Approaches for Improving Plant Health

-Dr. M. Sujatha

Dr. M. Sujatha, Emeritus Scientist (Plant Breeding) ICAR-IIOR, Hyderabad, presented on the evolution of molecular breeding technologies, discussing various

publications and advancements in molecular marker technologies, including SSRs, SNPs, and Marker-Assisted Selection (MAS).

- Enlisted about new approaches of transgenic crops like CRISPR-Cas9 gene Editing and RNA interference (RNAi), heat- and drought-tolerant traits
- Discussed about gene editing process and its importance
- Gene editing technologies like CRISPR-Cas9 are being used to enhance biotic stress tolerance in rice and major crops by introducing resistance to pathogens, pests, and viruses. This involves editing genes related to immunity or susceptibility, enabling crops to withstand diseases and reduce yield losses.
- Enlightened about current genome editing projects at CGIAR centres for biotic stress.

3. Molecular breeding and Genome editing for plant health management: Special reference to Oil palm (*Elaeis guineensis*)

-Dr. B. Kalyan Babu

Dr. B. Kalyan Babu: Principal Scientist (Biotechnology), ICAR-IIOPR, Pedavegi, Andhra Pradesh, discussed the crossing of Tenera and Pisifera spp in oil palm The crossing of Tenera (a hybrid between Dura and Pisifera species) and Pisifera in oil palm is aimed at improving yield and disease resistance. Tenera's high oil yield and Pisifera's disease resistance are combined to create more productive and resilient varieties.

- Highlighted the integrated genomic approaches like Bulk Segregant Analysis (BSA), Whole-Genome GWAS, and Bioinformatics combine genetic mapping, association studies, and computational tools to identify key loci associated with traits. These methods accelerate crop breeding by enabling precise gene identification and trait improvement. And also followed by validation of population at the farmers level
- Discussed GWAS for yield and oil yield GWAS for yield and oil yield in crops identifies genetic loci associated with these traits by correlating phenotypic data with genetic markers across a population. This helps pinpoint specific genes involved in high yield and oil content, aiding in the development of improved varieties through marker-assisted selection.

4. Genome editing for imparting grey mold resistance in castor (*Ricinus communis L.*)

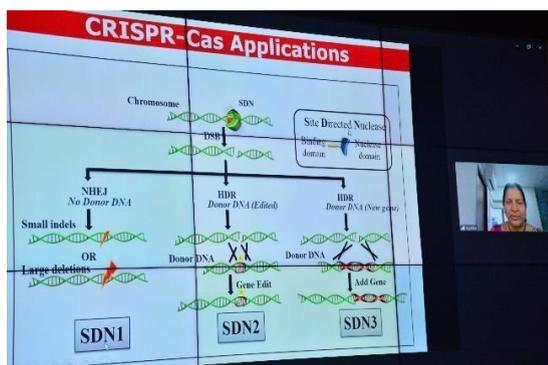
- Dr. B. Usha Kiran

Dr. B. Usha Kiran, Sr. Scientist (Agril. Biotechnology), ICAR-IIOR, Rajendranagar, Hyderabad, discussed the key components for genome editing in castor, include the CRISPR-Cas9 system for precise gene targeting and delivery vectors such as Agrobacterium or ribonucleoprotein complexes for efficient transformation. These tools enable the modification of genes related to traits like oil content and stress resistance.

- Listed approaches for tackling grey mold resistance in castor, like the use of molecular breeding to identify and introduce resistant genes through markers and genetic modification. Additionally, integrated pest management strategies and the development of fungicide-resistant varieties are explored to reduce disease impact.
- Enlightened about CAS 9 efficacy in castor Cas9 efficacy in castor has been demonstrated for precise gene editing, enabling targeted modifications for traits like oil content and stress resistance. The system shows promise in generating transgenic lines with improved agronomic characteristics, enhancing breeding efforts in castor.

Recommendations from the Concurrent Technical Session II:

1. Develop optimized CRISPR-Cas9 protocols for a wide range of crops, including pulses, oil palm, and castor, focusing on resistance to major biotic stresses like fungal diseases, insect pests, and viral pathogens.
2. Explore alternative genome-editing tools such as base editing and prime editing to achieve more precise and efficient genetic modifications.
3. Expand the use of marker-assisted selection (MAS) and genome-wide association studies (GWAS) to identify biotic stress-resistant traits in crops.
4. Establish high-throughput SNP-based CAPS marker systems for early-stage varietal identification and resistance screening.
5. Focus on the genomic analysis of key genes, such as those involved in immune responses and secondary metabolite biosynthesis, to improve tolerance mechanisms.
6. Implement functional validation of candidate genes through RNA interference (RNAi) and transgenic approaches.
7. Crop-Specific Research Initiatives- Develop superior hybrid varieties through advanced molecular breeding, focusing on high oil yield, disease resistance, and dwarfness for better management for oil palm.
8. Promote collaborative research projects among national and international institutes to accelerate the development of sustainable agricultural practices through genome editing.



Concurrent Technical Session III

Theme: Changing pest scenario, Epidemiology, Forecasting & Monitoring in relation to Climate change (Insect pests)

- Chairman** : Dr. Gururaj Katti, Principal Scientist (Entomology) & Head (Crop Protection), ICAR-IIRR, Hyderabad
- Co-Chairperson** : 1) Dr. Srinivas Parimi, Director – Field Development and Technical Partnerships, Provivi Inc., Hyderabad
2) Dr. M. Visalakshi, Principal Scientist (Entomology), AICRP on Biological Control, RARS, Anakapalle
- Rapporteurs** : 1) Dr. T. Naresh, Coordinator-AHS, VFSTR
2) Dr. L. Geethanjali, Asst. Professor, AHS, VFSTR

In this session, three pivotal lead papers and eleven oral presentations were delivered.

1. Novel Technologies in Management of Cotton Plant Health

- Dr. N.V.V.S. Durga Prasad

Dr. N.V.V.S. Durga Prasad, Associate Director of Research RARS, Lam, Guntur, emphasized the initial increase in cotton production through Bt technology but noted the challenges faced over the past nine years due to insect resistance.

- Outlined key constraints like sucking pests, bollworms, and leaf curl virus, and introduced novel technologies such as AI- powered pheromone traps, specialized lure application technology, and genetically engineered cotton hybrids expressing pest-resistant genes.
- Policy recommendations suggested prioritizing hybrids with pest tolerance based on performance in different conditions.

2. Fall Army Worm: An Overview

- Dr. J. C. Sekhar

Dr. J. C. Sekhar, Principal Scientist, ICAR-Indian Institute of Maize Research, Hyderabad, enlightens the importance of Fall armyworm (FAW) as emerging major pest in India. In 2018, it was first reported in Kerala. It is known for attacking crops like maize, causing significant economic losses. Screening resistant germplasms has been a priority in combating FAW, with institutions like CIMMYT leading efforts in testing over 6,000 maize varieties.

- Studies on biosynthesis of secondary metabolites and phytohormone alterations in maize have provided insights into natural resistance mechanisms. Additionally, RNA interference (RNAi) technologies and semi chemicals such as pheromones have enhanced the ability to monitor and manage FAW populations effectively.
- Dr. J. C. Sekhar highlighted the importance of biological control methods, which play a significant role in FAW management. Conservation agriculture, intercropping, and maintaining parasitoid diversity have shown potential in suppressing FAW outbreaks. Egg parasitoids, larval predators, and encapsulated Bt formulations are among the effective biopesticides used against FAW.

- Furthermore, Dr. J.C. Shekar also emphasized the research a priority continues to evolve, focusing on genomic analyses to identify significant single-nucleotide polymorphisms (SNPs) linked to FAW resistance.

3. Integration of Pheromones into pest management practices of Asia – experiences from Indonesia

-Dr. Srinivas Parimi

Dr. Srinivas Parimi, Director–Field Development and Technical Partnerships, Provivi Inc., Hyderabad, highlighted the importance of pheromones in IPM. QUEM SOMOS has developed 15 pheromones whereas Provivi manufactures pheromones with proprietary biocatalyst and low cost raw materials to reduce the steps needed to synthesize pheromones with higher production for which Green chemistry award was given.

- Dr. Parimi listed Proviiv products like:
 1. Pheron RSB against rice yellow stem borer (50% insecticide reduction and 74% yield)
 2. Provivi FAW against FAW (30% insecticide reduction and 72% yield win rate was achieved)
 3. Pherogen Spray FAW–against FAW (40% insecticide reduction and 82% yield win rate was achieved)
- He also informed about some collaborations of Godrej Agrovet with Provivi for achieving sustainable rice and maize production. Syngenta biologicals and Provivi were developing products against devastating pests in key crops across Asia.

Oral presentations included Dr. M. Sessa Maha Lakshmi, Professor (Entomology), Technical Officer (Polytechnics), ANGRAU, Lam, Guntur, discussed solar light traps for monitoring insect pests, emphasizing the use of IoT tools and the effectiveness of light traps against pink bollworms.

Dr. M. Sampathkumar, Senior Scientist (Agrl. Entomology) Division of Germplasm Collection and Characterization, ICAR- NBAIR, Bangalore focused on the occurrence of invasive insect pests in horticultural crops, linking their emergence to globalization and free trade. He specifically addressed the mango soft scale and apple leaf blotch miner, recommending biological control measures and highlighting the role of pest alerts in managing these threats.

Dr. G. Shali Raju, Scientist (Entomology), Krishi Vigyan Kendra, Venkataramannagudem, presented research on the population dynamics of the mango fruit fly, correlating infestation levels with weather parameters, while Dr. P. Damodar Reddy Asst. Professor, Department of Entomology, JC Diwakar Reddy Agricultural College, examined the influence of seasonal weather on the Rugose Spiralling Whitefly in guava.

Research scholars also contributed valuable findings follow.

- The effects of plant essential oil compounds on *Spodoptera litura* proteins, revealing the potential of phytochemicals as contact toxicants and repellents.
- Characterization of Bacterial Gut Symbionts of Diamondback Moth, *Plutella xylostella* focused on the bacterial gut symbionts of the Diamondback Moth, proposing future research directions aimed at symbiont-based pest control strategies and optimizing pest diets.

Recommendations from the Concurrent Technical Session III:

1. Enhance the development of Genetically Engineered crops with tolerance to multiple pests, including sucking pests, bollworms, and emerging invasive species like the Fall Armyworm.
2. Look forward to new area of research, particularly on microbiome/microbiota, a key area to be explore further.
3. Employ genomic tools such as SNP analysis and RNA interference (RNAi) technologies to accelerate the identification of resistant crop germplasm.
4. Develop AI-powered, IoT-integrated pest monitoring tools like pheromone traps equipped with cameras, acoustic devices, and solar light traps.
5. Establish databases and models for pest population dynamics and correlations with weather parameters to forecast outbreaks effectively.
6. Enhance biological control efforts by conserving natural enemies (e.g., parasitoids and predators) and promoting conservation agriculture practices.
7. Strengthen quarantine measures and pest alert systems to minimize the entry and spread of invasive pests like the mango soft scale and apple leaf blotch miner across agro-ecological zones.
8. Conduct region-specific studies on invasive pests to develop targeted management strategies, including chemical and biological controls.
9. Test crop and pest resilience under simulated climate change conditions to anticipate and mitigate future challenges.



Concurrent Technical Session IV

Theme: Changing pest scenario, Epidemiology, Forecasting & Monitoring in relation to Climate change (Plant Diseases)

- Chairman** : Dr. Paul WJ Taylor, Technical Coordinator, APAARI
- Co-Chairperson** : 1) Dr. P. Kishore Varma, Principal Scientist (Plant Pathology), RARS, Lam
- Rapporteurs** : 1) Dr. M.L.N.Nandini, Asst. Professor, AHS, VFSTR
2) Mrs. T. Umamaheswari, Asst. Professor, AHS, VFSTR

During this session, one lead paper and five oral presentations were delivered.

1. Diseases in rice and their management – current scenario and future path for a sustainable production

- Dr. C. Kannan

Dr. C. Kannan, Principal Scientist (Plant Pathology) at ICAR-IIRR, Hyderabad, delivered an insightful presentation on the current state of rice production and its challenges, focusing on the management of false smut disease in rice.

- Emphasizing integrated disease management, he outlined strategies such as cultural practices, the use of disease-resistant varieties, biological control agents (BCAs), and chemical control methods.
- He also highlighted advancements in microbial bioformulation technology as an eco-friendly alternative to agrochemicals. The isolation of microbial secondary metabolites from strains of *Trichoderma* led to the commercialization of compounds like masovia lactone and six pentyl-2H-pyrone.
- The need for capacity-building initiatives among farmers was also highlighted.

Oral presentations included Dr. B.K.M. Lakshmi, Principal Scientist (Plant Pathology) & Head, Dr. YSRHU-Mango Research Station, Nuzvid, AP, discussed the emerging threat of sooty mold to mango production in Coastal Andhra Pradesh. She presented findings on major mango diseases, particularly focusing on sooty mold caused by the fungus *Capnodium sp.*, which thrives on sugary secretions from sucking pests.

Dr. S.V. Ramana Rao, Principal Scientist (Agri. Econ) at ICAR-Indian Institute of Oilseeds Research, Hyderabad, presented on the role of partnerships in fostering plant health through bio-inoculants, stressing the challenge of producing sufficient food to meet global demands. The presentation highlighted the importance of partnerships with institutions for technology transfer and training, as well as engaging Farmer Producer Companies (FPCs) to ensure efficient distribution of bio-inoculants.

Dr. M. Mutyala Naidu, Principal Scientist (Hort.) & Head, Dr. YSRHU Horticultural Research Station, Mahanandi, Nandyal (Dt.), A.P., focused on viral diseases in banana production, discussing significant viruses like banana bract mosaic virus and banana bunchy top virus. Highlighted the susceptibility of certain banana varieties and proposed management strategies such as producing virus-free planting materials and implementing quarantine measures.

Dr. Nandappa Chorgasti, Assistant Professor at Malla Reddy University, Hyderabad, shared his findings from a survey on chilli diseases in Telangana, particularly anthracnose,

which poses a severe threat to chilli cultivation. He collected and identified various isolates, confirming the presence of pathogenic *Colletotrichum* species.

Lastly, Ms. Niveditha Pollumahanti, Project Associate II at the DBT One Health Project, NABL Accredited Food Microbiology Laboratory, National Meat Research Institute, Hyderabad, addressed the screening and isolation of *Listeria monocytogenes* from organic and non-organic leafy vegetables in Hyderabad. She found a higher contamination risk in non-organic vegetables and assessed the virulence of the pathogen, emphasizing the need for stringent quality control and regular monitoring to enhance food safety.

Recommendations from the Concurrent Technical Session IV:

1. Promote IDM practices that combine cultural, biological, and chemical approaches to minimize pest and disease impact while reducing environmental harm.
2. Scale up the use of bio-control agents (BCAs) and microbial formulations as eco-friendly alternatives to chemical pesticides.
3. Focus on interdisciplinary research to develop advanced tools for disease forecasting and monitoring under changing climate conditions.
4. Encourage studies on the genetic diversity and virulence of pathogens to better understand disease dynamics.
5. Strengthen disease surveillance and forecasting systems to anticipate outbreaks in the context of climate change.
6. Develop and disseminate region-specific management practices that address emerging diseases in key crops such as rice, mango, banana, and chillies.
7. Encourage the cultivation of climate-resilient and disease-resistant crop varieties.
8. Foster public-private partnerships (PPP) for scaling up bio-inoculant production and distribution.
9. Implement the "4P Approach" (Promote, Partner, Participate, Progress) to engage youth in agriculture and plant health initiatives.





Concurrent Technical Session V

Theme: Sanitary, Phytosanitary and Quarantine Regulations

- Chairman** : Dr. Baldissera Giovani, Coordinator, EUPHRESCO III
- Co-Chairperson** : 1) Dr. S. V. S. Gopala Swamy, Principal Scientist (Entomology), RARS, Lam
2) Dr. Harikishan Sudini, Principal Scientist and Head- Science Quality and Strategy, ICRISAT, Hyderabad
- Rapporteurs** : 1) Dr. Vishnupandi Senthil Kumar, Asst. Professor, AHS, VFSTR
2) Dr. G. Siva Nagaraju, Asst. Professor, AHS, VFSTR

During this session, two pivotal lead papers were delivered.

1. Mycotoxins as Global Risks for Food and Nutrition Security: Need for One Health, One world Approach

-Dr. M. K. Naik

Dr. M. K. Naik, Former Vice-Chancellor of KSNAHU, Shivamogga, began by discussing the significant issue of aflatoxin contamination in chillies within Telangana State, shedding light on the quantitative and qualitative estimation of phytotoxins.

- Highlighted the production of various aflatoxins, including Cap17, caf 23, caf 43, and caf 48, using ELISA techniques.
- Presented findings from analyses conducted in Gulbarga, Beilary, and Raichur districts, along with results from farm trials aimed at improving groundnut management through Good Agricultural Practices (GAP).
- Dr. Naik provided recommendations from a 'One Health' roadmap, emphasizing the need for comprehensive strategies that integrate food security, nutrition, and health.

2. A Holistic approach to Aflatoxin management in Groundnut is Key for safe and fair trade

-Dr. Harikishan Sudini

Dr. Harikishan Sudini, Principal Scientist and Head of Science Quality and Strategy at ICRISAT, Hyderabad, initiated his presentation by underscoring the necessity of a holistic approach to aflatoxin management in groundnuts to ensure food safety. Elaborated on mycotoxins and aflatoxins, sharing alarming reports of incidents such as the death of ten elephants in an Indian national park and further cases of elephants succumbing after consuming infected kodo millet.

Concurrent Technical Session VI

Theme: Artificial Intelligence and IoT for Plant Health Management

- Chairman** : Dr. M. K. Naik, Former Vice Chancellor, KSNAHU, Shivamogga
- Co-Chairperson** : 1) Dr. Sunil Kumar, Principal Scientist, Utkar
2) Ms. Madhu Manjari, Agri Digital Tools Coordinator- South Asia, CABI International
- Rapporteurs** : 1) Dr. Mahesh Vinayak Hadole, Coordinator, AE, VFSTR
2) Dr. Md. Anwar Ali, Asst. Professor, AHS, VFSTR

During this session, two pivotal lead papers and one oral presentation was delivered.

1. Human centric Design approaches for sustainability and scalability of farmers' advisory through CABI PlantwisePlus digital Advisory tools

- Ms. Madhu Manjari

Ms. Manjari, Agri Digital Tools Coordinator- South Asia, CABI International, highlighted CABI's establishment of plant clinics in over 27 countries, showcasing their commitment to delivering science-based agricultural knowledge to farmers.

- She pointed out the key features of CABI tools, such as gender inclusivity, free access, multilingual support, and user-friendly interfaces in web and mobile applications, designed to promote sustainable agricultural practices. Furthermore, CABI offers digital learning courses in nine languages, comprehensive plant health information, and crop protection support, all grounded in a human-centric design approach that addresses stakeholders' challenges.
- The chair suggested expanding this focus to include soil and crop-centric considerations, along with addressing the literacy rates among the targeted farming communities, as digitization requires a certain level of literacy.
- The presentation concluded with an overview of the human-centric design processes, tool validation, challenges faced, and a SWOT analysis of the initiatives.

2. Drone based package of practices for wet direct seeded rice – Innovation and challenges

- Dr. N. Ramagopalavarma

Dr. N. Ramagopalavarma, Principal Scientist (Entomology), Institute of Rice Research, PJTSAU, Hyderabad, introduced drone technology's transformative potential in Indian agriculture, sharing field experimental results and discussing the development of standard operating protocols for seven crops, including groundnut, cotton, and rice.

- Dr. Varma elaborated on pest detection models and the role of AI and machine learning in developing specific application algorithms. He highlighted a NABARD project utilizing drones for direct seeding in wet-seeded rice, noting the extensive data generated to optimize drone operations.
- The speaker compared the efficacy of drone spraying with conventional methods, asserting that drones are more economical and efficient.
- The chairman noted the importance of considering buffer zones during spray applications to protect water bodies and amphibian species.

Oral presentation includes "Drone-based Granular Spreader: SOPs for Application of Granular Insecticides in Rice." She detailed her experimental results and parameter

optimization for a disc-type UAV-based spreading device, conducting a comparative study with conventional methods, underscoring the advantages of drone technology in agricultural practices. The session concluded with a robust discussion, allowing participants to exchange ideas and insights.

Recommendations from the Concurrent Technical Session VI:

1. Expand research to incorporate human-centric design approaches alongside crop- and soil-centric strategies. Tools and technologies should address stakeholder needs while also considering crop health, soil conditions, and ecological sustainability.
2. Conduct literacy assessments within farming communities to design digital solutions that are inclusive, user-friendly, and accessible, even in low-literacy regions.
3. Conduct long-term validation studies to ensure the reliability and scalability of digital advisory tools across diverse agro-climatic regions.
4. Research and standardize drone-based Standard Operating Procedures (SOPs) for granular insecticide spreading and crop protection applications, ensuring optimal effectiveness and minimal environmental impact.
5. Enhance AI and machine learning models for pest detection, crop health assessment, and predictive analytics to provide precise, real-time solutions for farmers.
6. Develop datasets that capture crop-specific pest behaviors, disease patterns, and climatic variables to improve AI algorithm accuracy.
7. Conduct awareness campaigns and workshops on the use of IoT devices and AI tools to encourage widespread adoption and improve digital literacy among farming communities.
8. Encourage cross-border research on pest and disease control, particularly for invasive species that impact multiple regions.
9. Develop a SWOT-based evaluation framework to assess the scalability and sustainability of AI and IoT tools, ensuring they align with regional needs and challenges.
10. Implement robust monitoring mechanisms to measure the real-world impact of digital tools and drone technologies on crop yield, pest management, and environmental health.



Day 2: 18th December 2024

Keynote and Lead Papers Presentations

- Chairman** : Dr. K.S. Varaprasad
Adviser, Biosecurity and Bioresources
- Co-Chairperson** : 1) Dr. Gururaj Katti, Principal Scientist (Entomology) & Head (Crop Protection), ICAR-IIRR, Hyderabad
2) Ms. Madhu Manjari, Agri Digital Tools Coordinator- South Asia, CABI International
- Rapporteurs** : 1) Dr. Chandra Surya Rao M, Asst. Professor, AHS, VFSTR
2) Dr. T. Prabhakar Rao, Asst. Professor, AE, VFSTR

A total of three keynote and one lead papers were delivered during this session.

1. Policy Dimensions of SPS compliances for Agricultural Trade Facilitation: Bangladesh as Case study

– Dr. K. S. Varaprasad

Dr. K.S. Varaprasad, Project Manager (APAARI-EUPHRESCO III & USDA-SPS) & Former Director, ICAR- NBPGR, Bengaluru, keynote presentation provided an in-depth examination of strategic interventions to address the challenges of Sanitary and Phytosanitary (SPS) compliance in Bangladesh, emphasizing the vital role of the Asia- Pacific Association of Agricultural Research Institutions (APAARI) and its partners in enhancing capacity development and regulatory alignment to facilitate agricultural trade.

- Key challenges identified included export denials due to excessive pesticide residues, insufficient quarantine infrastructure, and limited stakeholder awareness of SPS protocols.
- Dr. Prasad proposed targeted training modules, public-private partnerships, and modernization of diagnostic and quarantine facilities as practical solutions. He highlighted notable achievements, such as advancements in quarantine inspection frameworks and a marked decrease in biopesticide residues.
- The presentation concluded with recommendations to establish a national Maximum Residue Limit (MRL) framework and expand the diagnostic laboratory network to support a resilient agricultural export system.

Following this, Dr. Sarath Babu queried the insufficient emphasis on capacity building in Bangladesh, to which Dr. Ravi Khetarpal responded that the brief tenure of governmental officers hinders effective communication and that systemic corruption has led to a lack of financial resources for capacity-building initiatives.

2. Challenges for Mitigating Risks of Incursion by Exotic Plant Pathogens

- Dr. Paul WJ Taylor

Professor Dr. Paul Taylor, Technical Coordinator, APAARI, then discussed the pressing plant health challenges in South and Southeast Asia, focusing on diagnostics, disease management, and sustainable practices.

- He emphasized the importance of advanced molecular diagnostic methodologies, such as PCR and LAMP, for bolstering biosecurity.

- Dr. Taylor presented case studies on significant phytopathological threats, including anthracnose and fusarium wilt, advocating for regional cooperation and capacity-building efforts, such as masterclasses and breeding disease-resistant crop varieties.
- A recommendation was made for EUPHRESKO to increase its engagement in the Asian region to effectively tackle these challenges through collaborative efforts.

3. Plant Health in Asia: The IPPC perspective

- Ms. Sarah Brunel

Ms. Sarah Brunel, Implementation & Facilitation Lead, IPPC Secretariat, FAO, Italy, highlighted the critical role of plant health within the One Health framework, addressing the rapid spread of invasive pests due to globalization and climate change, which pose threats to ecosystems and public health.

She discussed the IPPC e-Phyto Solution, which has facilitated over 7 million secure exchanges globally, enhancing efficiency in agricultural trade. Other transformative initiatives, such as the Phytosanitary Capacity Evaluation framework, were also spotlighted.

4. Crop biosecurity against plant viral diseases in Asia: Challenges

- Dr. V. Celia Chalam

Dr. V. Celia Chalam, Principal Scientist & Head, Division of Plant Quarantine, ICAR-National Bureau of Plant Genetic Resources, Pusa Campus, New Delhi, addressed crop biosecurity challenges from plant viral diseases, stressing the need for robust quarantine measures and standardized procedures for germplasm exchange. She highlighted the significant operations of ICAR-NBPGR's centres, which have processed over 700,000 germplasms, reinforcing the necessity of stringent quarantine systems.

1. Dr. Sashi B. Sharma reinforced the importance of capacity enhancement through CABI's initiatives and the need for region-specific SPS measures.
2. He urged collaborative efforts that align regional priorities with international standards, and he advocated for a comprehensive biosecurity bill to protect agricultural systems from invasive pests.

Recommendations from the keynote presentation:

1. Developing a National Maximum Residue Limit (MRL) Framework- Research should focus on creating a robust MRL system for pesticide residues tailored to local crop and trade requirements.
2. Design targeted training modules for stakeholders, emphasizing long-term capacity building and knowledge retention among government officers.
3. Enhance partnerships among institutions such as APAARI, EUPHRESKO, and CABI to address transboundary plant health challenges effectively.
4. Expand research into PCR and LAMP methodologies to improve early detection and management of phytopathological threats.

5. Enhance the collection and integration of plant health data within the One Health framework, ensuring timely detection and response to emerging threats.
6. Conduct research to establish SOPs for drone-based pest control and granular insecticide applications, focusing on minimizing environmental impact.
7. Advocate for a national biosecurity policy that aligns with global standards and addresses the increasing threats of invasive pests and diseases.
8. Digital Certification Systems: Expand the use of e-Phyto solutions for efficient, secure, and traceable germplasm exchanges.
9. Leverage funding opportunities from EUPHRESKO to address regional priorities, especially in diagnostics, pest management, and sustainable trade practices.



Panel Discussion of Farmers

Moderator : Sri Y. Venkateshwar Rao, Chairman, Rytunestam Foundation

Coordinator : Dr. T. Ramesh Babu, Dean SAFT, VFSTR

Panelist

1. Sri V. Sambireddy, Kollipara
2. Sri U. Chakrapani, Eluru
3. Sri Sharath Babu
4. Sri K. Ramakrishna
5. Sri Harikrishna

Rapporteur Dr. Harisha N, Assistant Professor, AHS, VFSTR.

Dr. Y. Varaprasad, Assistant Director, AHS, VFSTR.

Sri Y. Venkateshwar Rao, addressed the gathering, highlighting the detrimental effects of excessive agrochemical usage on soil and water health. He acknowledged the initial decline in crop yields when transitioning to organic manures, bio-pesticides, and bio- agents but noted that yields stabilize over time. He urged farmers to share their experiences and emphasized the importance of farmer-led extension activities for Technology Transfer (ToT). He also suggested implementing 30 crop kit trials at the farmer level.

Dr. T. Ramesh Babu, Dean, SAFT, VFSTR, welcomed the participants and elaborated on the theme of plant health. He discussed the mission of APAARI and EUPHRESCO III, stressing the importance of "Research Priorities and Partnerships" for improving the farming community's well-being. Dr. Babu emphasized Public-Private-Farmer partnership models and ToT approaches such as Lab-to-Land, Land-to-Lab, and Farmer- to-Farmer initiatives. He also committed to organizing the *Polam Badi Programme* with the partnership of Bio Factor Pvt. Ltd and farmers under this partnership model to enhance knowledge-sharing among farmers and between farmers and the industry.

Sri Boda Laxminarayana underscored the role of bio-fertilizers and bio-control agents in promoting plant health and suggested measures to improve soil organic carbon.

Sri Hari Krishna, Panelist, advocated for Integrated Farming Systems with livestock to enhance soil microorganisms. He encouraged the use of organic fertilizers, green manures, and bio-control agents, emphasizing their role in reducing crop maladies and improving soil organic carbon. He also urged farmers to conduct pilot studies to explore the feasibility of organic farming.

Sridhar Kollipara recommended utilizing bio-inoculants, fish meal, Panchagavya, and calotropis leaf extract to preserve soil flora and fauna.

Hon'ble Lavu Rathaiah, Chairman, VFSTR, stressed the importance of ensuring viable incomes for organic commodities through premium pricing. He encouraged collaborative research on natural farming and the adoption of farm mechanization, IoT, Artificial Intelligence, and Machine Learning for effective farm management. He also emphasized

the need for practical exposure to farm-level innovations.

Sri U. Chakrapani, Panelist, advocated for intercropping systems using organic fertilizers in horticultural crops like turmeric, oil palm, coconut, and guava. He urged farmers to adopt IoT and sensor-based technologies and encouraged scientists to conduct pilot studies for identifying feasible solutions.

Sri Sambhi Reddy, Panelist, shared the success story of the Shrestha FPO in Kollipara. He raised awareness about Good Agricultural Practices (GAP), value addition, branding, and the export potential of organic commodities.

Sri Katta Ramakrishna, an ICAR awardee, emphasized the benefits of crop rotation with pulse crops in enhancing soil fertility and health. He advocated the use of Farm Yard Manure (FYM) in combination with bio-fertilizers to reduce issues like dry root rot in Bengal gram.

Sri Saarath Babu expressed optimism about the conference's potential to drive positive changes in soil and plant health practices.

Dr. Ravi Ketharpal, Executive Director, APAARI, congratulated the farmers on their active participation. He emphasized regional and national partnerships with agricultural institutions, innovative technology adoption, and linking farmers to global markets through triangular cooperation among universities, industries, and farmers.

Dr. Baldissera Giovsani, EUPHRESCO III Coordinator, highlighted the interconnectedness of soil, plant, animal, and human health. He lauded the partnership approach for enhancing global productivity and commended the farmers for their active engagement.

Sri Venkata Rao Kadapa, Bio Factor suggested solutions for organic carbon improvement through their products in the Chilli Crop. He promised to supply organic bio factor products on a free basis to conduct field testing.

The panel discussion concluded with the felicitation of panel members and farmer participants by the Dean of SAFT, along with the AHS fraternity, in recognition of their valuable contributions.

All the farmer participants expressed happiness with the resolutions of panel discussion

Recommendations from the farmer's panel discussion:

1. Transition to organic manures, bio-pesticides, and bio-control agents to improve soil health, water quality, and crop resilience over time. Expect an initial decline in yields, but anticipate stabilization with proper management.
2. Adopt IFS to improve soil microorganism diversity, enhance soil health, and provide multiple income streams.
3. Conduct small-scale trials to evaluate the feasibility of organic farming and identify effective practices for broader implementation.
4. Explore Artificial Intelligence and Machine Learning for farm management, yield prediction, and pest control.

5. Share experiences and practices through Farmer-to-Farmer (F2F) initiatives, creating a community-driven knowledge pool.
6. Engage in field-level programs to bridge gaps between research, industry, and farmer practices.
7. Collaborate with companies like Bio Factor for free field testing of organic products to improve organic carbon levels in chilli farming.
8. Include pulses in crop rotations to fix nitrogen, enhance soil fertility, and reduce pest and disease incidences.
9. Engage with universities, industries, and farmer groups for collaborative research, funding opportunities, and innovative technology transfer.
10. Participate in research initiatives on natural farming practices to improve productivity and sustainability.
11. Conduct 30-crop kit trials at the farmer level to evaluate new technologies and practices for wider adoption.



Panel Discussion of Industries

Coordinator : Dr. B. Sarath Babu, President, Plant Protection Association of India (PPAI)

Panelist

1. Dr. K. S. Thyagarajan
2. Shri. L. N. Reddy
3. Mr. Sushanth Manasa
4. Shri. Venkat Rao

Rapporteur Dr. S. Karthikeyan, Coordinator, FT, VFSTR.

Dr. Syed Irshaan, Assistant Professor , FT, VFSTR.

Dr. B. Sarath Babu, President of PPAI, aptly began the session by emphasizing the importance of partnerships among farmers, industrialists, public-private universities, and research centers. This sentiment set the tone for a collaborative and solution-oriented dialogue.

Key Insights from the Panel:

- **Dr. K. S. Thyagarajan** brought attention to India's 39th rank in the 2024 Global Innovation Index and emphasized sustainable and safer formulations in pesticides. He highlighted emerging areas like bioherbicides, biopesticides, and the innovative use of natural substances such as essential oils, plant extracts, and even spider and bee venom for pest control.
- **Shri. L. N. Reddy** focused on the critical balance between biological and chemical fertilizers, stressing their role in improving soil health and plant productivity. The concept of **metabiome**, introduced by Dr. Sukumar, was particularly noteworthy as a sustainable microbial solution addressing climate change and drought mitigation. The connection between global fertilizer dynamics and plant protection chemicals was thoughtfully articulated.
- **Mr. Sushanth Manasa** showcased Farm Sathi's innovative electric farm robots designed for efficient farming practices. By reducing operation costs, eliminating the need for skilled labor, and enhancing productivity, these robots represent a step forward in empowering farmers to double their income.
- **Shri. Venkat Rao** shed light on the need for short-duration crops and uniform harvesting methods, addressing photosensitivity and operational efficiency in farming practices.

Recommendations from the industrialists' panel discussion:

1. Prioritize innovations in bio-solutions that align with environmental safety and regulatory standards.
2. Scale up the development and deployment of electric farm robots, like those from Farm Sathi, to reduce operational costs, eliminate dependence on skilled labor, and boost productivity.

3. Research further automation technologies tailored to Indian agricultural needs, considering smallholder farms and diverse crop systems.
4. Invest in R&D for nano-fertilizers and water-soluble fertilizers that optimize nutrient delivery, reduce wastage, and mitigate environmental impact.
5. Collaborate with research institutions to align agricultural practices and outputs with WTO agreements to enhance global market opportunities for Indian products.
6. Partner with private universities and industry leaders to develop a comprehensive data-generation bank that informs plant protection advisories and policy frameworks.
7. Design industry-backed pilot programs to test and demonstrate new technologies and sustainable solutions at the farm level.
8. Develop customized nutrient plans using soil health data and precision agriculture tools.
9. Encourage value addition through processing, branding, and export-oriented production.



Recommendations of ICPHA 2024

1. Advocate for the One Health Approach to manage aflatoxin contamination and pesticide residues, linking plant health to broader environmental, animal, and human health systems.

APAARI's role in policy advocacy, regional collaboration, and promoting sustainable agriculture makes it an ideal organization to coordinate efforts to integrate agricultural practices with human, animal, and environmental health systems.

*APAARI promote methods like crop rotation, timely harvesting and pest control. Conducts training on proper drying, sorting and storage to prevent mold growth. It promotes the use of non toxigenic strains of *Aspergillus* to outcompete the toxigenic ones in the field.*

2. Establish frameworks similar to EUPHRESKO III in Asia to prioritize regional research needs, address pest and pathogen challenges, and foster collaboration across countries.

APAARI should take the lead in establishing a regional research framework in Asia and SAUs / Universities / Research Institutions will play a critical role in implementing and adapting research to local conditions.

3. Prioritize research on the bioecology, population dynamics, and ecological adaptations of invasive species like *Thrips parvispinus*, *Silba capsicarum*, and fall armyworm in diverse agroecosystems.

EUPHRESKO would likely be the most effective choice for coordinating high-level, interdisciplinary research on invasive species in diverse agroecosystems, while APAARI could complement this with regional studies, particularly for the Asia-Pacific area. State Agricultural Universities / Universities / Research Institutions would be crucial for field-based research, but global collaboration would enhance the impact and scope of their work.

APAARI's risk identification tools like GIS mapping, farmers reporting systems can be adapted to track thrips outbreaks. Collection of samples for identifying samples and detecting resistance patterns, Explore biological control options such as introducing predatory insects or entomopathogenic fungi.

4. Model pest outbreaks under different climate scenarios to predict and mitigate potential threats.

EUPHRESKO focuses on the coordination of phytosanitary research, which includes plant protection, pest forecasting, and biosecurity research, particularly in the context of climate change and has Strong focus on pest prediction, biosecurity, and phytosanitary research.

5. Develop optimized CRISPR-Cas9 protocols for a wide range of crops, including pulses, oil palm, and castor, focusing on resistance to major biotic stresses like fungal diseases, insect pests, and viral pathogens.

APAARI can leverage research networks and collaborations

across countries where crops like pulses, oil palm, and castor are of significant agricultural importance. SAUs / Universities / Research Institutions often have strong connections to local farming communities and real-world agricultural challenges, which gives them an edge in testing and applying CRISPR-Cas9 technologies for practical crop improvement.

APAARI prioritizes genes or pathways for editing such as those related to disease resistance, insect deterrence, or toxin neutralization.. It focusses on improving efficiency in gene delivery systems (AG mediated, particle bombardment etc). focusses on research to validate off target effects and gene editing precision under regional conditions.

- 6. Crop-Specific Research Initiatives- Develop superior hybrid varieties through advanced molecular breeding, focusing on high oil yield, disease resistance, and dwarfness for better management for oil palm.**

APAARI stands out as the most suitable organization, given its regional focus on the Asia-Pacific region, where oil palm is a major crop. APAARI's ability to foster collaboration across multiple countries in the region makes it ideal for advancing molecular breeding strategies for oil palm hybrids.

APAARI mobilizes research on Genotyping-By-Sequencing(GBS) and QTL mapping for key traits like:

- A) High mesocarp-to-fruit ratio (High oil content)**
- B) Shorter trunk weight or slow vertical growth (For easy harvesting)**
- C) Resistance to Basal stem rot (Ganoderma)**

- 7. Develop AI-powered, IoT-integrated pest monitoring tools like pheromone traps equipped with cameras, acoustic devices, and solar light traps.**

EUPHRESCO is the best-suited organization for developing AI-powered, IoT-integrated pest monitoring tools. Their advanced focus on phytosanitary research, pest forecasting, and data analytics, combined with their strong international collaboration network, makes them ideal for integrating AI, IoT, and remote sensing technologies into pest management systems. EUPHRESCO's expertise will allow them to design and deploy sophisticated pest monitoring systems across diverse agricultural systems in Europe and beyond.

- 8. Enhance biological control efforts by conserving natural enemies (e.g., parasitoids and predators) and promoting conservation agriculture practices.**

EUPHRESCO's research is centered on sustainable plant protection practices, which include biological control and the promotion of IPM systems that reduce the use of synthetic chemicals. EUPHRESCO supports the development of agroecological approaches, which align well with conservation agriculture practices.

It focusses on enhancing habitat conditions to support existing natural enemies, managing non-crop vegetation (Hedge rows and flowering strips) to provide refuge, nectar and alternative prey

It aligns with sustainable farming by promoting practices like Reduced tillage and soil cover which help to preserve habitat for ground dwelling predators.

Cover cropping can harbor natural enemies during off season

- 9. Promote IDM practices that combine cultural, biological, and chemical approaches to minimize pest and disease impact while reducing environmental harm.**

EUPHRESCO is uniquely positioned to lead the promotion of IDM practices, particularly given its focus on sustainable plant protection. Its strong research base, capacity for collaboration, and expertise in integrated pest management make it an ideal choice for promoting IDM at a broader level

- 10. Strengthen disease surveillance and forecasting systems to anticipate outbreaks in the context of climate change.**

SAUs / Universities / Research Institutions conduct extensive field research, which is essential for validating disease forecasting models in real-world conditions. They can implement pilot disease surveillance programs that integrate local data and climate forecasts.

- 11. Conduct comprehensive studies on the occurrence, distribution, and impact of mycotoxins, such as aflatoxins, in diverse crops and regions, emphasizing contamination hotspots like Telangana, Gulbarga, Bellary, and Raichur.**

SAUs' / Universities / Research Institutions connection with farmers allows them to evaluate the real-world impact of mycotoxins and advise on pre-harvest management strategies to mitigate contamination. They conduct region-specific studies and have the infrastructure to assess aflatoxin contamination in crops grown in these hotspots, including groundnut, maize, and rice.

- 12. Develop and refine quantitative and qualitative diagnostic tools, such as ELISA and advanced molecular techniques, to improve the detection and monitoring of aflatoxin contamination.**

EUPHRESCO, ICRISAT has the capacity to engage in the development of high-throughput molecular techniques, such as qPCR

(quantitative PCR) and CRISPR-based diagnostics, for sensitive and rapid detection of aflatoxins.

- 13. Conduct literacy assessments within farming communities to design digital solutions that are inclusive, user-friendly, and accessible, even in low-literacy regions.**

SAUs / Universities / Research Institutions can design user- friendly digital tools that are specifically tailored to the needs of farmers in their regions, taking into account local literacy levels, language, and cultural factors.

- 14. Research and standardize drone-based Standard Operating Procedures (SOPs) for granular insecticide spreading and crop protection applications, ensuring optimal effectiveness and minimal environmental impact.**

EUPHRESCO is involved in research on precision agriculture, which includes improving the efficiency and effectiveness of pesticide application. Their network could contribute to the development of SOPs that focus on precision pest control and environmental impact reduction.

- 15. Developing a National Maximum Residue Limit (MRL) Framework- Research should focus on creating a robust MRL system for pesticide residues tailored to local crop and trade requirements.**

APAARI is the best to coordinate the development of a National MRL framework for pesticide residues, with SAUs / Universities / Research Institutions focusing on empirical research and local implementation.

- 16. Expand research into PCR and LAMP methodologies to improve early detection and management of phytopathological threats.**

APAARI should take the lead in coordinating regional research on PCR and LAMP methodologies, ensuring that diagnostic tools are adapted to the diverse agricultural ecosystems of the Asia- Pacific region.

- 17. Adopt IFS to improve soil microorganism diversity, enhance soil health, and provide multiple income streams.**

SAUs / Universities / Research Institutions have expertise in crop production, livestock management, and soil science, making them well-equipped to design and implement integrated systems that promote diverse income streams and improve soil health.

- 18. Explore Artificial Intelligence and Machine Learning for farm management, yield prediction, and pest control.**

SAUs / Universities / Research Institutions have in-depth knowledge of local agricultural challenges, making them ideal for developing context-specific AI applications that can improve farm management in specific regions.

19. Scale up the development and deployment of electric farm robots, like those from Farm Sathi, to reduce operational costs, eliminate dependence on skilled labor, and boost productivity.

SAUs / Universities / Research Institutions can engage directly with farmers to understand their needs, allowing them to tailor the development of electric farm robots to the specific challenges of different regions (e.g., smallholder farms, specific crop types, and labor issues).

20. Collaborate with research institutions to align agricultural practices and outputs with WTO agreements to enhance global market opportunities for Indian products.

APAARI is well-placed to work with governments, regulatory bodies, and international organizations to ensure that Indian agricultural practices comply with global standards, including those set by the WTO.

Valedictory session

The conference, organized by the Asia Pacific Association for Agricultural Research Institutes (APAARI) and the European Plant Health Research and Coordination (EPRHRESKO III), was a resounding success, characterised by meaningful discussions, innovative ideas, and valuable partnerships. Below is an elaborate account of the speeches and expressions of gratitude from key speakers during the conference.

Dr. K. S. Varaprasad, Project Manager (USDA-SPS Project) APAARI & Former Director, ICAR-IIOR, Hyderabad, in his address, expressed his heartfelt gratitude to all those involved in organizing the conference. He conveyed his sincere appreciation for the level of the international conference, which exceeded his expectations. Dr. K.S. Varaprasad highlighted the serene campus of Vignan University, emphasizing the vibrant student community and the extensive involvement of all sectors in the Research Academy. He remarked that the active participation from diverse sectors and the constructive deliberations, even when marked by differences of opinion, were essential for the fruitful outcomes that the conference aimed to achieve. His speech was an acknowledgement of the collaborative spirit that made the event a resounding success.

Dr. Paul WJ Taylor, Technical Coordinator, APAARI, conveyed his deepest appreciation, describing the conference as an absolute pleasure. He mentioned how the event provided him with an impressive opportunity to engage in various research works and contribute to discussions that left a positive impact. Dr. Paul WJ Taylor expressed particular admiration for the students who participated and the individuals responsible for organizing the event. He also acknowledged the involvement of stakeholders, such as farmers, who played a critical role in bringing a real-world perspective to the discussions and also shared his experience that the event had successfully bridged the gap between research and practical applications, making it a memorable experience for all attendees.

Dr. Ravi Khetarpal, Executive Director, Asia-Pacific Association of Agricultural Research Institutions (APAARI), Bangkok, in his address, shared his immense gratitude, emphasizing that the event was made possible by the efforts of an individual—a man from Italy residing in France, whose passion for India had brought all the participants together. Dr. Ravi Khetarpal highlighted a key observation from the conference, stressing the importance of partnerships, particularly in the context of the farmers' panel. He proposed that a global coordination program should be established where farmers from around the world could be brought together to share their perspectives and contribute to meaningful projects. Dr. Ravi Khetarpal also underscored the valuable contributions of the private sector, acknowledging how companies with vast knowledge and visionary outlooks could play a pivotal role in fostering innovation and advancing research.

Dr. Baldissera Giovani, Coordinator, European Plant Health Research and Coordination (EUPHRESKO III), began his speech by applauding the conference organizers for successfully hosting such a large-scale event involving multiple stakeholders. He described it as a unique experience and praised the logistics and coordination that made the event run smoothly. Dr. Baldissera shared his profound sense of happiness, stating that he never felt alone during the conference, as there was always a protective and supportive presence around him. He also shared his perspective on the importance of institutionalising future initiatives to ensure the sustainability of the global network. Dr. Baldissera stressed that while passionate individuals may drive initiatives today and tomorrow, only institutionalisation would guarantee the long-term success and forward momentum of global partnerships.

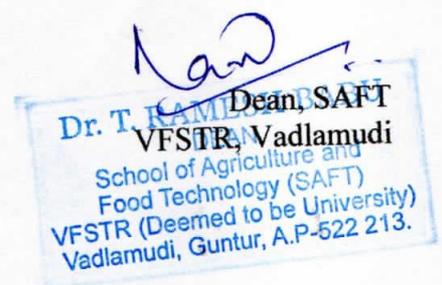
Dr. S.V. Ramana Rao, Principal Scientist (Agri. Economics) ICAR-IIOR, Hyderabad, expressed his belief in the vast potential of Vignan University, particularly in the area of innovation. He praised the university for having a highly intelligent and capable student body, encouraging them not to merely seek jobs but to create opportunities for others. Dr. S.V. Ramana Rao emphasized the importance of topics like plant health and the development of ecosystems, noting that Vignan could lead in these fields by fostering practical, forward-thinking solutions. He conveyed his trust in the institution's ability to take the lead and make a significant impact in plant health and related areas.

Col. Prof. P. Nagabhushan, Hon'ble Vice Chancellor, VFSTR, expressed his deep gratitude towards Dr. Ravi Khetarpal for his positive approach and ability to find optimism in challenging situations. He highlighted how Dr. Ravi Khetarpal's constructive observations had set an example for the delegates to follow. Col. Prof. P. Nagabhushan also expressed his gratitude to Dr. T. Ramesh Babu, Dean, SAFT, VFSTR, for his visionary work in involving farmers in the academic and research spheres. He lauded the concept of public-private-farmer partnerships (PPFP), emphasizing that this approach was key to integrating farmers more deeply into research and policy discussions. This concept was seen as a game-changer in building sustainable, inclusive partnerships for the future.

Dr. B. Sarath Babu, President, Plant Protection Association of India (PPAI), in his speech, reflected on the strong partnership he shares with Dr. Katti and Dr. TVK Singh in the Plant Protection Association of India. He expressed his immense satisfaction with the conference's proceedings, recalling how Dr. Ramesh Babu's work in organizing international conferences on plant health management had made a significant impact. Dr. Babu also acknowledged the pivotal role played by Dr. K.S. Varaprasad as the president of the society, making the event a monumental success. His words celebrated the continued collaboration and the strength of partnerships that had emerged from the conference.

Dr. Pandu. U, Asst. Professor, AHS, VFSTR, on behalf of the Organizing Committee, expressed immense privilege and profound gratitude for the opportunity to host the International Conference on —Plant Health in Asia: Research Priorities and Partnerships. He specifically extended his appreciation to the knowledge partners for their invaluable cooperation in making the event a success. Dr. Pandu also acknowledged the crucial role played by the keynote speakers in providing insightful perspectives on plant health research and the importance of fostering strong partnerships. He took the opportunity to thank all the faculty members, researchers, and volunteers whose tireless efforts ensured the smooth execution of the conference, highlighting their significant contributions to its success.

In conclusion, the International Conference on Plant Health in Asia was not only a platform for presenting cutting-edge research but also a gathering that fostered collaboration, innovation, and partnerships across multiple sectors. The reflections and expressions of gratitude from key figures underscored the importance of continued cooperation between academic institutions, the private sector, farmers, and other stakeholders to address global challenges in plant health. The event marked a significant step forward in building a global network for research, knowledge-sharing, and sustainability in plant health management.





త్రిముఖ వ్యూహం అనుసరించాలి

పామర్రు: బంగ్లాదేశ్లో అమలు పరుస్తున్న త్రిముఖ వ్యూహాన్ని (నాణ్యత, భద్రత, ప్రపంచ మార్కెట్లో సులభ వాణిజ్యం) మన దేశమూ అనుసరించాల్సిన అవశ్యకత ఉందని అపారి ప్రాజెక్ట్ మేనేజర్ కేవీఎన్ వరప్రసాద్ అన్నారు. వడ్లమూడి విజ్ఞాన యూనివర్సిటీలో బుధవారం షాంట్ హెల్త్ ఇన్ ఆసియా రీసెర్చ్ ప్రయారిటీస్ అండ్ పార్టనర్షిప్స్ అనే అంశంపై నిర్వహించిన అంతర్జాతీయ

సదస్సుకు ఆయన ముఖ్యఅతిథిగా వచ్చారు. ఈ సందర్భంగా ఆయన దుయా బంగ్లాదేశ్లో ఎస్పీఎస్ (సైటోశానిటర్) అనేవి వ్యవసాయ, ఉత్పత్తులు, ఆరోగ్య భద్రతను కాపాడే పద్ధతులపై పరిరక్షణకు రూపొందించిన అనుసరించాల్సిన అవశ్యకతను పేర్కొన్నారు. ఈ విషయంపై అంతర్జాతీయ వాణిజ్యంతో సంబంధం ఉంటాయని వెల్లడించారు. కార్యక్రమ విజ్ఞాన విద్యా సంస్థల అధ్యక్షుడు రత్నయ్య ఉప కులపతి పి.నాగభూషణ్ చార్మి రిజిస్ట్రార్ సీఎంపీ రావు పాల్గొన్నారు.



మాట్లాడుతున్న వరప్రసాద్

Date : 19/12/2024 EditionName : ANDHRA PRADESH (AMARAVATI GUNTUR) PageNo : 04

విజ్ఞాన్ వర్కషీలో ముగిసిన జాతీయ సదస్సు

ప్రకాశ్-గుంటూరు బంగ్లాదేశ్లో అమలు చేస్తున్న త్రిముఖ వ్యూహాన్ని (నాణ్యత, భద్రత, ప్రపంచ మార్కెట్లో సులభ వాణిజ్యం) మన దేశమూ అనుసరించాల్సిన అవశ్యకతను పేర్కొన్నారు. ఈ విషయంపై నిర్వహించిన అంతర్జాతీయ వాణిజ్యంతో సంబంధం ఉంటాయని వెల్లడించారు. కార్యక్రమ విజ్ఞాన విద్యా సంస్థల అధ్యక్షుడు రత్నయ్య ఉప కులపతి పి.నాగభూషణ్ చార్మి రిజిస్ట్రార్ సీఎంపీ రావు పాల్గొన్నారు.



మాట్లాడుతున్న వరప్రసాద్

Stress on modern methods in agri-food syst

EXPRESS NEWS SERVICE
@ Vijayawada

A two-day international conference on 'Plant Health in Asia: Research Priorities and Partnerships' was inaugurated on Tuesday at Vignan University, Vadlamudi, Chebrolu Mandal, in collaboration with APARI (Asia-Pacific Association of Agricultural Research Institutes) and the European Plant Health Research and Coordination.

T Vijay Kumar, Executive Vice Chairman of Rythu Sadhikara Samstha and Advisor to the Department of Agricul-

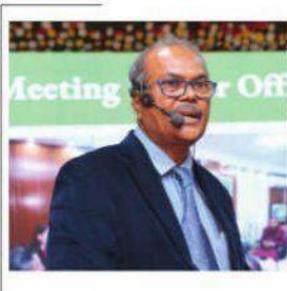


ture and Cooperation, addressed the gathering as the chief guest, emphasising the organisation's commitment to the welfare of farmers, agricultural development, and improving livelihoods in the state.

Vijay Kumar also announced that the government would provide financial and technical

support, including to farmers, while p ganic farming pra

Dr Ravi Khetarp Director of APARI the need for modt in the agri-food sy ularly from produ sumption. He stre portance of using I drones, and digital tect plant health, er disease detection a tervention. Dr Bal ni, Coordinator o Phytosanitary Res dination, discusse collaboration in r research.



ముగిసిన అంతర్జాతీయ సదస్సు

విశ వ్రతసిధి, గుంటూరు : బంగ్లాదేశ్లో అమలుపరుస్తున్న త్రిముఖ వ్యూహాన్ని (నాణ్యత, భద్రత, ప్రపంచ మార్కెట్లో సులభ వాణిజ్యం) మనం కూడా అనుసరించాలని వికార్ - బిబి.ఆర్ మాజీ డైరెక్టర్, అపారి ప్రాజెక్ట్ మేనేజర్ దాక్టర్ కేవీఎన్ వరప్రసాద్ అన్నారు. చేబ్రోలు మండలం వడ్లమూడి విజ్ఞాన్ యూనివర్సిటీలోని స్మార్ట్ ఆఫ్ అగ్రికల్చర్ అండ్ ఫుడ్ టెక్నాలజీ విభాగంలోని డిపార్ట్మెంట్ ఆఫ్ అగ్రికల్చర్ అండ్ ఫుడ్ టెక్నాలజీలోని సెన్సెస్, అపారి (ఆసియా-పసిఫిక్ అసోసియేషన్ ఆఫ్ అగ్రికల్చరల్ రీసెర్చ్ ఇన్స్టిట్యూట్స్), యూరోపియన్ షాంట్ హెల్త్ రీసెర్చ్ అండ్ కోఆర్డినేషన్ సంయుక్త ఆధ్వర్యంలో

షాంట్ హెల్త్ ఇన్ ఆసియా : రీసెర్చ్ ప్రయారిటీస్ అండ్ పార్టనర్షిప్స్" అనే అంశంపై రెండు రోజుల పాటు నిర్వహించిన అంతర్జాతీయ సదస్సును బుధవారం ముగించారు. ఈ కార్యక్రమానికి ముఖ్య అతిథిగా మాట్లాడుతూ బంగ్లాదేశ్లో ఎస్పీఎస్ అనేవి వ్యవసాయ ఉత్పత్తులు, ఆహార ఉత్పత్తుల ఆరోగ్యభద్రతను కాపాడటానికి, పర్యావరణ పరిరక్షణకు రూపొందించిన నిబంధనల న్నారు. ఈ విధానాలు అంతర్జాతీయ వాణిజ్యంతో సంబంధం కలిగి ఉంటాయన్నారు. అనంతరం సారా బ్రానెల్ (ఇటలీ) సౌత్ ఏసియా సీవీఐఐ ఇంటర్నేషనల్ రీజనల్ డైరెక్టర్ దాక్టర్ వివోద్ పండిట్ మాట్లాడారు. అలాగే చల్పాదు, ప్రకాశం, క్రిష్ణ, పశ్చిమ గోదావరి, గుంటూరు జిల్లాలకు చెందిన 145 మంది రైతులతో రైతుసేవ సంస్థ డాక్టర్ వై.వెంకటేశ్వరరావు ప్యానెల్ డిస్కషన్ నిర్వహించారు.



ACKNOWLEDGEMENT

Climate Smart Agriculture plays a pivotal role in acknowledging the urgent imperative to address the ever-increasing challenges posed by climate change, which significantly affect the global food security, livelihoods, and the ecosystems upon which we rely. Climate Smart Agriculture not only plays a crucial part in mitigating these challenges but also in adapting to them, ensuring the sustainability and resilience of our food production systems. We are acutely aware of the intricate interplay between climate, agriculture, and human well-being. It is our responsibility to promote sustainable practices that enhance agricultural productivity, reduce greenhouse gas emissions, and strengthen the resilience of our food systems.

The Global Conference on Climate Smart Agriculture revolved around the main theme of "Transforming Agri-food Systems amid Changing Climate." This significant event was meticulously organized into nine technical sessions, each thoughtfully structured around five key sub-themes. These sub-themes encompassed critical areas, including regenerative agriculture, the impact of climate change on agriculture and rural livelihoods, climate-smart supply chain management, digital innovations aimed at enabling climate-smart agriculture, and the essential policies required to mainstream these transformative practices.

Throughout the conference, a total of 25 scholarly papers were presented. These included 12 enlightening keynote presentations and 13 lead papers, each offering invaluable insights into the challenges and opportunities of climate-smart agriculture. Furthermore, 20 abstracts were thoughtfully selected for poster presentations, enriching our collective knowledge. The event also featured two engaging panel discussions. The first delved into the strategic approach towards developing climate-smart landscapes and food systems, while the second explored farmers' level strategies for promoting climate-smart agriculture.

As the Chairperson of this conference, I extend my profound gratitude to the esteemed guests, distinguished keynote speakers, lead presenters, dedicated researchers, diligent farmers, aspiring students, and respected delegates who graced the "Global Conference on Climate Smart Agriculture" with their presence and unwavering commitment. Your active involvement in this significant event has added immeasurable value to the discourse on climate-smart agriculture.

I also take this opportunity to acknowledge the vital role played by the University Management and Administration. Their unwavering dedication to our academic and research pursuits has undeniably been the foundation upon which our institution's success stands. Their steadfast support, both in terms of logistical arrangements and administrative coordination, has been truly indispensable in ensuring the seamless execution of this conference.

I must also express our heartfelt gratitude to Chithanya Godavarai Grameena Bank, the National Bank for Agriculture and Rural Development (NABARD), Punjab National Bank, Dasarath Fertilizers, Siri Seeds, Sri Venkateswara Irrigation Systems, and Sree Ramanjaneya Micro Irrigation Services for their generous financial support for the Global Conference on Climate Smart Agriculture. Your contributions have been instrumental in making this event a reality, and we are deeply appreciative of your support.

Lastly, I wish to extend a special thanks to Dr. V. Dinesh Rahul, Dr. T. Naresh, Ms. P. Sai Ravali, Ms. V. Priyanka Raj, and Dr. M. Chandra Surya Rao of AHS for their dedicated efforts in compiling the proceedings of the Global Conference. Your hard work and dedication are deeply appreciated.

Dr. T. Ramesh Babu, Dean,

Proceedings of the Global Conference on
“Climate Smart Agriculture - 2023”
27th to 29th March 2023



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Proceedings of the Global Conference on “Climate Smart Agriculture - 2023”

The Department of Agricultural and Horticultural Sciences (AHS), Vignan's Foundation for Science Technology and Research (VFSTR) organized a "Global Conference on Climate Smart Agriculture (GCCSA)" on 27th - 29th March, 2023, at VFSTR (Deemed to be University), Vadlamudi, Guntur with the technical collaboration of Asia-Pacific Association of Agricultural Research Institutions (APAARI), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Plant Protection Association of India (PPAI), Dr. Y.S.R. Horticultural University (Dr. YSRHU), Prof. Jayashankar Telangana State Agricultural University (PJTSAU), Sri Konda Lakshman Telangana State Horticultural University (SKLTSHU) and World Agroforestry (CIFOR-ICRAF). The three-day programme was organized in nine technical sessions besides inaugural session, two panel discussion sessions and valedictory session.

Prelude:

The B. Sc. (Hons.) Agriculture was offered by the Department of Agricultural and Horticultural Sciences, the course commenced in the University from the academic year 2021 – 22. The three-day event of the global conference was organized with an intension to congregate the experts in the field of “Climate Smart Agriculture” and to establish better connections for the university in the field of Agriculture research. The conference's key objectives were to showcase research on the impact of climate change on agriculture, examine structural changes and resource degradation and explore strategies to enhance farm income. Given the growing concern over climate change's effects on Indian agriculture, the conference specifically focused on discussing the adverse implications of climate change and potential Climate Smart Interventions.

The conference holds great importance as it serves as a platform for bringing together policymakers, academics, research and development institutes, industry and farmers in the field of Agriculture. The primary purpose is to discuss policy matters, strategies, and implementation challenges related to “Climate Smart Agriculture”. The conference's main objective is to gather specialists from various fields, particularly those focused on adapting food, agriculture and allied sectors to climate change, in order to propose future action plans for sustaining agricultural production. The discussions during the conference provide a roadmap for increasing farmers' income through Climate Smart Agriculture. The 9 sessions are organized around five sub themes: i) Regenerative Agriculture, ii) Climate Change: Agriculture and Rural Livelihoods, iii) Climate Smart Supply Chain Management, iv) Digital innovations for enabling Climate Smart Agriculture, v) Enabling Policies for mainstreaming Climate Smart Agriculture. During the conference, a total of 25 invited papers (12 Keynote and 13 Lead) and 13 accepted papers were presented across various sessions. Additionally, 20 abstracts were approved for poster presentations, adding to the wealth of knowledge shared. The recommendations from each session are summarized below. Furthermore, the conference featured two panel discussions focusing on i) Strategic approach towards developing climate Smart landscapes and food systems ii) Farmers level strategies for promoting Climate Smart Agriculture.

Day 1: 27th March 2023

Inaugural session

The inaugural session started with inviting the dignitaries on to the dias; Dr. T. Ramesh Babu, Dean School of Agriculture and Food Technology, Vignan's Foundation for Science Technology and Research (VFSTR), Dr. M. S. Raghunathan, Registrar, VFSTR; Dr. B. Sarath Babu, President, Plant Protection Association of India (PPAI); Dr. Manoj Dabas, Deputy Chief of Party, Trees Outside Forest in India (TOFI), CIFOR-ICRAF; Dr. K. S. Vara Prasad, Former Director, ICAR-IIOR, present Project Manager, USDA-SPS Project, APAARI; Dr. C. Vasudevappa Vice Chancellor, National Institute of Food Technology Entrepreneurship and Management (NIFTEM); Dr. S. R. Niranjana, Former Vice Chancellor, Gulbarga University; Dr. B. Venkateswarlu, Former Vice Chancellor, VNMKV and Former Director, ICAR- CRIDA; Dr. R. R. Hanchinal, Former Vice Chancellor, UAS- Dharwad and Former Chairman, PPVFR; Dr. N. S. Rathore, Former Deputy Director General of Education, ICAR and Former Vice Chancellor, MPUAT; Dr. M. Malakondaih, Former Director General of Police A. P, Advisor - VFSTR; Prof. P. Nagabhushan, Vice Chancellor, VFSTR; Dr. Lavu Rathaiah, Chancellor, VFSTR; Dr. Arvind Kumar Deputy Director General- ICRISAT. All the dignitaries had stepped forward to light the lamp. Dr. T. Ramesh Babu, Dean SAFT, VFSTR and Conference Chair enlightened about the purpose of the Global Conference on Climate Smart Agriculture – 2023.



Prof. P. Nagabhushan, Hon'ble Vice Chancellor, VFSTR, expressed delight at the significant expansion of the School of Agriculture and Food Technology (SAFT). He emphasized the conference's potential to greatly contribute to the field of agriculture. Prof. Nagabhushan noted that individuals from diverse departments, including Electronics, Mechanical engineering, and Computing, often have agricultural roots, with many having parents from an agricultural background. VFSTR stands out among private universities as the first to wholeheartedly implement the expectations of the National Educational Policy (NEP), focusing on continuous learning and assessment, as witnessed by the students. He commended SAFT for introducing the innovative minor course on Smart Farming. Prof. Naga Bhushan expressed his belief in the exceptional logical and analytical thinking abilities of budding Agriculture graduates, which he anticipated would become a reality within the next ten years.



Dr. T. Ramesh Babu, Dean of SAFT, welcomed the esteemed guests both present on the stage and off the stage with great warmth and enthusiasm. Further, Dr. Ramesh Babu assured all the conference participants that the three-day programme comprising of 12 keynote papers, 13 lead papers and 13 oral presentations, 20 poster presentations and two panel discussions one with stakeholders and the other with farmers would be productive and informative for everyone involved. Besides, Dr. Ramesh Babu made reference to the 6th Deans report of ICAR, highlighting the proposal for a B. Sc. (Hons) Agri. degree

consisting of 160 credits, with an additional requirement of 20 online credits for Honors degree. Further, he also mentioned that a minor course called Smart Farming (Future of Agriculture) has been introduced at VFSTR, comprising five courses worth 20 credits in total. These courses include Basics of crop production and precision farming, Hitech Horticulture, Agri-Business Management, Soilless Farming, and Digital Agriculture. Furthermore, he appealed to the ICAR stall bodies in attendance to consider incorporating the provision of minor course concept in place of online course whereas in the 6th Dean's committee, as it would greatly benefit the students and potentially enhance their employability or foster entrepreneurial ventures.

Comde. Dr. M.S. Raghunathan, Registrar, VFSTR expressed his gratitude to all the delegates and dignitaries who had made the effort to attend the conference. Dr. M.S.



Raghunathan, acknowledged the remarkable achievements of VFSTR in the fields of academics, research, and training, despite being established only 14 years ago. Further, Dr. M.S. Raghunathan highlighted that nearly 12,000 students have successfully graduated from VFSTR as of 2022. Additionally, he mentioned that the university has undergone two cycles of NAAC accreditation, resulting in an upgrade from grade A to grade A⁺. Furthermore, he emphasized that the agriculture degree offered by VFSTR has not only attracted students from nearby areas but also from other regions of Andhra Pradesh. Moreover, he drew attention to the fact that out of the total 82.86 acres of VFSTR's campus, a significant 40-acre portion has been specifically allocated for the Department of Agricultural and Horticultural Sciences (AHS), underscoring its importance.



Dr. B. Sarath Babu, President, PPAI commended the university for its impressive growth and development within a relatively short span of 14 years. Dr. Sarath Babu expressed admiration for the department of AHS for its proactive approach in integrating three technology courses, namely Python Programming, Machine Learning, and Statistical Methods with Data Visualization. In addition to that Dr. Sarath Babu emphasized that the inclusion of these technology courses would provide students with valuable skills, making them more desirable to technology companies and industries.



Mr. Manoj Dabas, Deputy Chief of Party, TOFI: CIFOR-ICRAF emphasized that the true Smartness of agriculture lies in the intelligence and adaptability of farmers themselves. Additionally, Mr. Manoj expressed that merely implementing technology alone is insufficient to make agriculture Smart; it requires farmers who are knowledgeable and willing to embrace technological advancements. Further Mr. Manoj compared the battle between the sea and the land as a metaphor for the ongoing challenges faced between nature and mankind. Also, he highlighted that the current forest cover in India stands at 21%. Moreover, Mr. Manoj mentioned that to enhance the resilience of agriculture, a Smart approach of reintegrating trees into agricultural practices is necessary. Furthermore, Mr.

Manoj added that strengthening the tree component of agriculture would ensure food security for the growing population and address the pressing needs of the nation.



Dr. K.S Varaprasad, Project Manager (USDA – SPS PROJECT) APAARI acknowledged the undeniable reality of climate change and stressed that those who are adaptive and intelligent will endure, while those who are not will face extinction. Further, Dr Varaprasad emphasized that being Smart is not a choice but a necessity in the face of climate change. Also, he specifically highlighted the profound impact of climate change on farmers, particularly small-scale farmers who make up 80% of the farming population in our country. Additionally Dr. Varaprasad expressed his hope for meaningful discussions that would empower farmers with the knowledge and skills needed to navigate these challenges and ensure their survival, as they currently find themselves on the precipice of disappearing. Furthermore, Dr. Varaprasad emphasized that it is our collective responsibility to empower and uplift farmers by equipping them with the necessary tools to adapt and thrive in the face of climate change.



Dr. C. Vasudevappa, the Vice Chancellor of NIFTEM, Haryana, highlighted that India has been fortunate to attain food security. However, he pointed out that there is a significant amount of food loss within the food supply chain management. He stressed that in order to achieve food security by 2050, it is crucial to prioritize the reduction of food wastage. Moreover, during his discussion, he emphasized the significance of consuming healthy food and encouraged students to cultivate entrepreneurial skills specifically in the domains of Agriculture and Food Technology.



Dr. S.R Niranjana, Former Vice Chancellor, Gulbarga University commended the university for selecting the topic of "Climate Smart Agriculture" as a forward-looking initiative. Further Dr. Niranjana highlighted the importance of researching and identifying the means and techniques necessary to meet future food demands by the year 2050. He acknowledged that significant efforts and work need to be devoted to this endeavor. Furthermore, he expressed appreciation for the Vice-Chancellor, Prof. P. Nagabhushan, for successfully implementing the choice-based credit system at Mysore University, making it a notable achievement.



Dr. B. Venkateswarlu, Former Vice Chancellor, VNMKV Parbhani and Former Director, ICAR-CRIDA emphasized that climate change is currently the most pressing issue, surpassing all others in importance. Further, Dr. Venkateswarlu noted that climate change affects all sectors, but the agricultural sector is particularly vulnerable. Adding to that Dr. Venkateswarlu mentioned just a week ago, the country was expecting a bountiful harvest of 110 million tons of wheat in the *Rabi* season, with everything progressing smoothly. However, unforeseen, and untimely rains accompanied by hailstorms struck 5-6 states in North India, causing significant damage. He highlighted this event as an example of how climate change can disrupt

and have profound consequences. Furthermore, he stressed the urgency of addressing climate change and the need for immediate action to mitigate its impacts, emphasizing the potential consequences, if necessary, measures are not taken.



Dr. R. R. Hanchinal, Former Vice Chancellor, UAS, Dharwad, Former Chairman, PPVFR highlighted the potential for significant advancements by making agriculture Smarter, especially in response to current uncertainties. Besides, Dr Hanchinal cited impressive achievements in food production, with 328 million tons of food and 340 million tons of horticulture produced in the previous year. Further, he mentioned the success of various revolutions, including the green revolution, blue revolution, yellow revolution, and advancements in vegetable production. However, he cautioned that with every 2.5⁰C increase in temperature, there is a corresponding reduction in yield, accompanied by the emergence of new diseases and pests. Furthermore, he pointed out the challenge of supporting 17 percent of the world's population with only 2.38 percent arable land, along with limited freshwater resources accounting for just 4 percent. Given these circumstances, he stressed the imperative to feed a population of 1.416 billion amidst unfavorable climate conditions, necessitating the generation of new innovations and proactive measures to address climate change.



Dr. N. S. Rathore, Former DDG (Edn.) ICAR and Former Vice Chancellor, MPUAT brought attention to the undeniable fact that climate change has already occurred, and he emphasized the urgency to take action. He introduced the acronym "SRIRAM," which stands for Scientific Research Intervention, Resilience Agriculture Adoption, Climate Change, and Mitigation Climate Change. Dr. Rathore explained that resilience agriculture refers to the capacity and ability of our agricultural system to effectively confront climate change challenges and respond promptly. Additionally, he highlighted the significance of mechanization and secondary agriculture. He emphasized that adoption entails taking proactive measures to ensure our ability to withstand the impacts of climate change and secure our survival in the face of these changing climatic conditions.



Dr. Lavu Rathaiah, Chancellor, VFSTR expressed his dissatisfaction with the current situation, noting that everyone involved in agriculture seems to be Happy except farmers themselves. Dr. Rathaiah highlighted the perspective that both the government and society tend to view agriculture solely as an economic issue, neglecting the social aspects that are often overlooked by the media. Further, he emphasized the importance of agriculturalists engaging in conversations with individuals from various parts of the world to learn how technology can be effectively adopted to simplify farmers' tasks. In conclusion he drew attention to the adverse effects of global warming on agriculture. Also advised young aspiring agriculturalists to conduct research and discover new methods that enable crops to adapt to the extreme conditions caused by climate change.

The souvenir prepared for the conference containing Keynote Papers, Lead Papers, Strategic Papers and Accepted Papers (Oral and Poster Presentation) was released by the dignitaries present on the dais.



Dr. Arvind Kumar, Deputy Director General – Research, ICRISAT reminisced about an experience where he was assigned the responsibility of converting forest land into agricultural land for IRRI in the prime minister's constituency. Additionally, Dr. Aravind praised the chairman's visionary approach towards nurturing young entrepreneurs and agricultural scientists to sustain the vitality of agriculture. Furthermore, he stressed that we owe a responsibility to farmers to make agriculture less burdensome, more technology-friendly, and Smarter. Also, he reminded everyone not to forget that they chose this path to serve farmers and contribute to a larger cause.

Prof. P. Nagabhushan, Hon'ble Vice Chancellor, VFSTR in his presidential remarks noted that the university has introduced the opportunity for professionals to pursue a Ph.D. Further, Prof. P. Nagabhushan drew attention to the wastage of food in modern society, expressing his dissatisfaction with unnecessary excess consumption. Also, he emphasized that wasting cooked food is highly inappropriate. In addition to that he highlighted the significance of not only procuring food but also preserving it, underscoring its importance. Furthermore, he stressed the value of combining traditional knowledge with techno-scientific knowledge in the field of agriculture. Nonetheless, he recalled Lal Bahadur Shastri's slogan, "Jai Jawan Jai Kisan," which emphasized the vital roles played by both the soldier and the farmer in providing for our well-being and enjoyment. In conclusion he remarked that adversity serves as a catalyst for progress, and therefore, welcomed challenges as they enable us to become Smarter and more resilient.



Dr. N. Narayan Rao, HoD, Applied Engineering in his Vote of thanks conveyed his gratitude for having the opportunity to attend and participate in the opening ceremony alongside esteemed dignitaries. Further, he expressed his honor at the presence of distinguished guests and participants, recognizing their significance in inaugurating what are expected to be a meaningful and promising event. Also, he extended his heartfelt appreciation to the guests for graciously sparing time from their busy schedule to be part of the conference. Additionally, he expressed sincere thanks to the

organizing committee, volunteers, and staff for their dedicated efforts in arranging the conference. Furthermore, he expressed gratitude to the sponsors and partners whose support and collaboration have contributed to making the event even more vibrant and impactful.

Technical session I

Chairman : Dr. Arvind Kumar, Deputy Director General (Research), ICRISAT

Co-Chairman : Dr. K. S. Varaprasad, Former Director, ICAR-IIOR
Project Manager (USDA – SPS Project), APAARI, Bangkok

Dr. T. Ramesh Babu, Former Dean of Agriculture, ANGRAU
Dean, School of Agriculture and Food Technology, VFSTR

Rapporteurs : Dr. M. V. Hadole, Assistant Professor, VFSTR
Mr. Md. Rahaman Khan, Assistant Professor, VFSTR

During this session, three prominent keynote and invited papers took center stage and captivated the delegates.

1. Climate Resilience for Drylands

- Dr. Arvind Kumar

Dr. Arvind Kumar, Deputy Director General of Research at ICRISAT, delved into the intricacies of dryland agriculture and underscored the significance of embracing climate-resilient technologies to tackle the impending food crisis predicted for 2050. Advocating for a forward looking approach, he suggested favoring millet cultivation over conventional rice-wheat farming.

Dr. Aravind also emphasized the pivotal role of mechanization in mitigating the challenges posed by climate change in agriculture. In addition to this, he shed light on the importance of identifying millet market opportunities and adopting water budget-based cropping techniques to ensure sustainable agricultural practices. His insights shed valuable light on the path towards a resilient and prosperous future for agriculture in drylands.

2. Climate Smart Agriculture: Can India Cope with Climate Change Impacts?

- Dr. B. Venkateswarlu

Dr. B. Venkateswarlu, Former Vice Chancellor of VNMKV, Parbhani, and Former Director of ICAR-CRIDA, delved into the profound implications of climate change on agriculture in India. With eloquence, he elucidated the essence of climate change and its inherent year-to-year variations, bringing attention to anthropogenic warming and its far-reaching consequences on global temperatures, notably the escalation of night temperatures.

In his comprehensive presentation, Dr. Venkateswarlu expounded on the dual nature of climate change's impact on crops, encompassing both positive and negative aspects, while also elaborating on its significant economic ramifications. He passionately emphasized the imperative adoption of climate-resilient crop varieties, embracing diversified cropping patterns, prioritizing irrigation and soil management, advocating water harvesting techniques, and promoting agroforestry practices.

Moreover, Dr. Venkateswarlu stressed the urgency for sustained long-term research to effectively tackle the multifaceted challenges posed by climate change. His insights not only enriched the understanding of climate change's repercussions on agriculture but also underscored the pressing need for proactive measures to ensure a sustainable and secure future for Indian agriculture.

3. Making Agriculture Smart: Need to Integrate Trees with Cropping Patterns

-Mr. Manoj Dabas

Mr. Manoj Dabas, the Deputy Chief of Party at TOFI, CIFOR – ICRAF, underscored the pivotal role of trees in fostering intelligent agriculture. He passionately stressed the adverse effects of conventional energy generation processes on the environment and the alarming rate at which deforestation outpaces reforestation efforts.

Mr. Dabas shed light on India's substantial wood demand, leading to imports from less developed countries like Indonesia. He emphasized the pressing need for sustainable practices, particularly in agroforestry, as trees play a vital role in safeguarding the soil from erosion and contributing to agricultural prosperity.

The core message of his presentation centered around the significance of increasing forest cover for effective carbon sequestration and the mitigation of CO₂ emissions. Mr. Dabas passionately advocated for planting more trees to ensure the sustainable production of wood and foster a greener and healthier future for agriculture and the environment.

The chairman stressed the utmost importance of climate-Smart agriculture in the face of ongoing climate change impacts. The session's papers focused on several critical aspects, highlighting the need for proactive measures:

- **Adapting Climate Resilience Technology:** To meet the food requirements of the growing population, it is imperative to adopt climate-resilient technologies. The projected decrease in rice yield by 2050 necessitates urgent action to ensure food security.
- **Enhancing Millet Market Demand in Drylands:** In regions with drylands, identifying opportunities to boost the market demand for millets is crucial. Implementing water budget-based cropping patterns can contribute to sustainable agriculture in these areas.
- **Dual Impact of Climate Change on Crops:** Climate change has both positive and negative effects on crops, making it essential to understand and address these challenges for successful agricultural practices.
- **Climate Change's Impact on India's Agriculture GDP:** Predictions indicate that climate change will significantly impact India's Agriculture GDP, underscoring the urgency to develop adaptive strategies.
- **Development of Drought-Tolerant Crop Varieties:** The need for drought-tolerant crop varieties and the adoption of diversified cropping patterns is crucial to build resilience against climate-induced adversities.
- **Importance of Increasing Vegetative Cover:** Wood contains 50% carbon by weight, making it a significant resource in mitigating climate change effects. Increasing vegetative cover, particularly through forests, has the potential to sequester billions of tons of greenhouse gases, emphasizing its role in climate change mitigation.
- **The Trees Outside Forests in India (TOFI) program** is a collaborative effort of USAID and MoEFCC, Government of India. This five-year initiative, spearheaded by a consortium of eight partners led by CIFOR-ICRAF, is dedicated to increasing the expanse of trees outside forests to enhance both livelihoods and the environment.

These research findings and insights presented during the session underscore the necessity of urgent and coordinated efforts to implement climate-Smart practices and technologies to safeguard agriculture and the environment for future generations.



Technical Session II

- Chairman** : Dr C. Vasudevappa, Vice Chancellor, NIFTEM-Kundli
- Co-Chairman:** Dr D. Vijaya Ramu, Dean PCF, VFSTR
- Rapporteurs** : Dr. Syed Irshaan
Dr. Mrinmoy Roy

During this session, four distinguished keynote and invited papers presents valuable insights and research findings to the delegates.

1.Climate Smart Supply Chains (Food Supply Chain Perspective)

- Dr. C. Vasudevappa

Dr. Vasudevappa, Vice Chancellor, NIFTEM-Kundli underscored the paramount importance of the Agriculture, Animal Husbandry, and Aquatic sectors in fostering national growth and achieving food self-sufficiency. During his address, he shed light on the critical issue of food losses and waste in the supply chain.

Recognizing the challenges posed by population growth and climate change, Dr. Vasudevappa emphasized the necessity of Climate Smart Agriculture as a proactive approach to ensure food security and sustainability. The impacts of climate change on food production were discussed in depth, emphasizing the urgency for responsive strategies.

In pursuit of effective mitigation, the Vice Chancellor outlined various approaches, including assessing linkages across the supply chain, promoting sustainable agricultural practices, facilitating better access to finance, and developing robust postharvest infrastructure.

Moreover, the session highlighted the significance of Climate Resilient Supply Chains, integration of Information and Communication Technology (ICT), and the adoption of green supply chain practices as key enablers of increased productivity and sustainability in these sectors.

The comprehensive insights presented by the Vice Chancellor emphasized the imperative need for coordinated efforts and innovative solutions to address the challenges faced by agriculture, animal husbandry, and aquatic sectors, ensuring their vitality in fostering national growth and securing food self-sufficiency for the future.

2.Transforming Agrifood systems amid climate change

– Dr. Ravi Khetarpal, Executive Director, APAARI, Bangkok

Dr. K.S. Varaprasad, the Project Manager of USDA-SPS Project at APAARI Bangkok, delivered an insightful presentation that emphasized the interconnectedness between sustainable development goals and climate change. He drew attention to the critical 5F crisis (Food, Feed, Fuel, Fertilizer and Finance) that humanity faced during the COVID-19 pandemic, exposing weaknesses in agrifood systems.

During his talk, Dr. Varaprasad highlighted the mission and strategy of the Food and Agriculture Organization (FAO), aiming to achieve more efficient, inclusive, resilient, and sustainable agrifood systems for enhanced production.

Introducing (The Modelling System for Agricultural Impacts of Agriculture (MOSAICC), an interdisciplinary tool for climate change impact assessment, he underlined the pressing threat climate change poses to agriculture. To combat these challenges, he stressed the essentiality of integrating climate-Smart agriculture as part of the solution.

Furthermore, Dr. Varaprasad called upon the global community to take decisive action in reducing emissions and promoting sustainable practices to safeguard agricultural systems and ensure a more resilient and sustainable future. His presentation resonated with the audience, encouraging a collective commitment towards a more climate-resilient and sustainable world.

3. Transformation of Agri-Food System to Agroecology-based Natural Farming: A Sustainable Solution to Climate Change

- Dr. K. S. Varaprasad

During his presentation, Dr. K. S. Varaprasad, the Project Manager of USDA-SPS Project at APAARI, Bangkok, brought attention to the adverse effects of climate change on various aspects of the agricultural value chains, transportation, and livestock productivity.

Addressing the environmental impact of agriculture and livestock production, he emphasized the significant contribution of these sectors to greenhouse gas emissions and deforestation. To counteract these negative effects, Dr. Varaprasad advocated for the adoption of sustainable practices like Agro ecology and Natural Farming. These approaches, he highlighted, can not only enhance biodiversity and soil health but also facilitate carbon sequestration while concurrently reducing GHG emissions.

Furthermore, the presentation emphasized the importance of crop diversification and efficient water usage in sustainable agriculture. Dr. Varaprasad showcased the success of Zero Budget Natural Farming as a viable model for sustainable agriculture.

To further promote these sustainable approaches, the speaker urged increased investments in research and development focused on natural farming. By adopting these practices, agricultural systems can become more resilient to climate change while fostering ecological balance and sustainable food production.

In his address, Dr.P.S. Brahmanand, the Director of WTC, ICAR-IARI, New Delhi, underscored the critical challenges facing water and food security in India. He shed light on the impact of population growth, dwindling water resources, and the effects of climate change on these vital sectors.

To tackle these challenges, Dr. Brahmanand recommended the adoption of climate-resilient water management technologies developed by ICAR. He emphasized the significance of practicing Climate-Smart Agriculture and implementing resilient water management practices to ensure sustainable food production and water security.

A key focus of his presentation was on the concept of integrated water resource management. He highlighted the importance of utilizing innovative techniques to control drought and ensure the long-term sustainability of agriculture and water resources in India.

By embracing these strategies and technologies, India can work towards overcoming the hurdles posed by water and food security, fortifying its resilience to changing climatic conditions and securing a prosperous and sustainable future.

In his closing remarks, the chairman of the session emphasized the pressing need for the integration of Information and Communication Technology (ICT) in the climate-Smart supply chain management of agricultural produce. The papers presented during the session mainly focused on the following key aspects:

- Weaknesses Exposed by the COVID-19 Pandemic and 5F Crisis: The COVID-19 pandemic and the 5F crisis revealed vulnerabilities and low resilience in agrifood systems, calling for robust measures to address these challenges.

- **MOSAICC as an Interdisciplinary Climate Change Impact Assessment Tool:** The Modelling System for Agricultural Impacts of Climate Change (MOSAICC) was introduced as a country-driven, interdisciplinary tool for assessing climate change impacts at a national level.
- **Climate Resilient Supply Chains:** Key areas for Climate Resilient Supply Chains were explored, including increasing agricultural productivity and income sustainability, adapting small-holder farming systems, reducing greenhouse gas emissions, adopting regenerative agriculture, and implementing green supply chains.
- **Agro ecology for Climate Change Mitigation:** Sustainable approaches like Agro ecology were discussed, aiming to address the climate change crisis by enhancing biodiversity, soil health, ecosystem services, and promoting social equity and resilience.
- **Natural Farming for Soil Health and Carbon Sequestration:** Natural Farming, characterized by minimal or no tillage, was presented as a sustainable solution to reduce soil disturbance, increase soil organic matter, and enhance carbon sequestration, contributing to climate change mitigation by reducing greenhouse gas emissions.
- **Benefits of Crop Diversification and Efficient Water Use:** Crop diversification, intercropping, and crop rotation were identified as practices that enhance biodiversity, improve soil health, and reduce the risk of pests and diseases. Additionally, natural farming practices promote efficient water use through techniques like rainwater harvesting and water-saving technologies, which can significantly reduce water consumption compared to flood irrigation.
- **Adoption of Innovative Water Management Techniques:** The integration of innovative water management techniques into policies like the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was emphasized to enhance agricultural water efficiency and sustainability.

These insights presented during the session underline the importance of integrating sustainable practices and innovative technologies to address climate change challenges and ensure the resilience and sustainability of agricultural systems.



Technical Session III

- Chairman** : Dr. N. S. Rathore, Former DDG (ICAR)
Former Vice Chancellor, MPUAT, Udaipur
- Co-Chairman:** Dr. K. P. Vidhu, Joint Director, NIPHM, Hyderabad
Dr. N. Narayan Rao, Asso. Professor and Head, AE, VFSTR
- Rapporteurs** : Ms. K. Sravya, Assistant Professor, AHS, VFSTR
Mr. G. Adithya, Assistant Professor, AE, VFSTR

In this session, three pivotal keynote and invited papers were delivered.

1. Mechanization and Post-Harvest Technology

- Dr. N. S. Rathore

Dr.N.S. Rathore, former Deputy Director General (Education), ICAR and former Vice Chancellor of MPUAT, Udaipur, set forth the significance of mechanization in Indian agriculture and its current progress. He underscored the importance of adopting optimal design criteria for precision farming machinery, addressing the concerns arising from improper machinery selection by farmers. Moreover, he explored the challenges associated with integrating artificial intelligence into agricultural mechanization.

Dr. Rathore also delved into a wide range of opportunities in secondary agriculture, with a particular focus on post-harvest activities and value addition. He emphasized the need for improved policies and the development of suitable machinery to enhance post-harvest operations in the agricultural sector. His insightful discourse provided valuable insights into the future of mechanized farming in India.

2. Assessment of Pesticide Spraying Awareness for Optimal Efficiency and Reduced Exposure Hazards

-Dr. K. P. Vidhu

Dr. K. P. Vidhu, Joint Director of NIPHM, Hyderabad, delved into the critical issue of environmental pollution caused by pesticides and chemicals. He shared the results of a comprehensive survey that encompassed irrigation methods, plant protection techniques, and behavioral patterns observed among farmers.

Dr. Vidhu emphasized the noteworthy disparities in the behavior and health of farmers who used protective gear while applying pesticides and fertilizers in contrast to those who did not. This highlighted the importance of adopting safety measures to protect farmers from potential harm.

Furthermore, he stressed the necessity of enhancing the understanding of chemical labels and promoting proper disposal of pesticide containers to prevent environmental contamination.

In conclusion, Dr. Vidhu advocated for a revision of policies that would limit pesticide spraying solely to licensed personnel. This approach aims to mitigate the adverse impact of pesticides on the environment and human health, ensuring a more sustainable and responsible agricultural ecosystem.

3. Innovation and Partnership for Climate-Smart Agriculture: Incubating Solutions for a Sustainable Future – Mr. Sandeep

During his talk, Mr. Sandeep, the CEO of TBI (Technology Business Incubator) at VFSTR, highlighted the presence of several noteworthy Agri-tech incubators in India, including

ICRISAT in Hyderabad, Villgro in Chennai, Vignan TBI, ANGRAU Poshan incubator, GRAMEENA incubation center in Visakhapatnam, and SVCET TBI in Chittoor.

He addressed the challenges faced by innovators in the agricultural technology sector, which encompassed limited resources, technical and market hurdles, a need for mentorship, funding constraints, and the importance of networking for growth and success.

Mr. Sandeep emphasized the pivotal role played by the government and its policies in supporting innovation and fostering partnerships for the advancement of climate-Smart agriculture.

In conclusion, he encouraged students to share their innovative ideas and concepts, urging them to seek support from relevant organizations and funding agencies available at VFSTR to further develop and bring their agricultural innovations to fruition.

The session's chairman expressed the view that the future of mechanization should be intertwined with artificial intelligence. Additionally, he underscored the significance of farmers selecting the appropriate machinery for specific purposes to make agriculture Smarter and more efficient.

The key points from this session are:

- Precise design criteria are essential in the development of machinery for Precision Farming to ensure optimal performance.
- Addressing the challenges that farmers encounter in selecting appropriate machinery for specific tasks is crucial for improving agricultural efficiency.
- Integrating artificial intelligence into mechanization presents both challenges and significant opportunities in India.
- Improving farmer's knowledge about reading chemical labels and identifying the chemicals they use is imperative and requires attention.
- Implementing proper disposal methods for pesticide containers is vital to address ecological and health concerns.
- VFSTR is committed to support and empower young entrepreneurs to pursue their startup aspirations by offering encouragement and assistance.



Day 2: 28th March 2023

Technical Session IV

- Chairman** : Dr. R.R Hanchinal, Former Vice Chancellor, UAS Dharwad
Former Chairman, PPVFR
- Co-Chairman:** Dr. B. Sarath Babu, Former Principal Scientist and Head,
ICAR-NBPGR, Regional Station, Hyderabad, President, PPAI
Dr. T.C Venkateswarlu, HOD, Biotechnology, VFSTR
- Rapporteurs** : Ms. V. Priyanka Raj, Assistant Professor, AHS, VFSTR
Dr. D. Lavanya, Assistant Professor, FT, VFSTR

A total of four keynote and invited papers were delivered during this session.

1. Enhancing agriculture productivity through climate Smart seed delivery systems

– R. R. Hanchinal

Dr. R.R Hanchinal, former Vice Chancellor of UAS, Dharwad, emphasized the significance of Climate-Smart Agriculture in combating world hunger through improved crop production. He delved into the evolution of the Indian seed industry and provided insights into the present status of seed production in both the public and private sectors. Dr. Hanchinal discussed how seed security directly impacts food, nutritional, and social security.

Furthermore, he shed light on the challenges posed by climate change and stressed the importance of adopting Smart cultivation practices to mitigate its effects. Dr. Hanchinal concluded by emphasizing the critical role of quality seeds in achieving a Second Green Revolution, highlighting their paramount importance in sustainable agricultural development.

2. Sustainable Agricultural Production through Soil Health Management and Robust Varieties in the wake of Climate Change

- Dr. A. Satyanarayana

Dr. A. Satyanarayana, Former Director of Extension at ANGRAU and Executive Director of Sangam Seeds, emphasized the fundamental importance of healthy soils in cultivating nutritious crops, leading to the overall well-being of individuals and the nation.

He discussed the concept of eco-agriculture and elucidated the crucial role of humus in maintaining soil health. Dr. Satyanarayana also highlighted the significance of green revolution technology in agricultural practices.

Moreover, he shed light on the benefits of using potassium humate and the role of microorganisms in promoting soil fertility. Additionally, he explored the intricate relationship between phyto hormones and plant parasites.

Dr. Satyanarayana concluded by underscoring the pivotal role of soil fertility in producing healthy crops and enhancing national health through innovative agricultural practices. He emphasized the need for development of climate resilient varieties with enhanced resilience to changing climate. He also addressed the impacts of climate change on food production systems and the various actors in the food supply chain.

Dr. B. Sarat Babu, Former Principal Scientist and Head at ICAR-NBPGR, Regional Station, Hyderabad, focused on policy and legal frameworks concerning plant genetics conservation. He covered several crucial topics, including the PGR (Plant Genetic Resources) policy, the protection of plant varieties, and biodiversity conservation.

Dr. Babu delved into the impact of climate change on plant genetic resources and stressed the significance of their sustainable use and development. He highlighted the crucial role played by the Indian plant genetic resource management system in acquiring, evaluating, conserving, and utilizing germplasm.

In conclusion, Dr. Babu emphasized the paramount importance of leveraging plant genetic resources to enhance cultivars, leading to increased productivity and addressing the nation's challenges related to hunger and food security. His presentation shed light on the importance of sound policy and legal measures for preserving and utilizing plant genetics for the benefit of society and agriculture.

3. Genetically Modified Technology for Nutrition and Food Security

–Dr. S. R. Niranjana

Dr. S.R. Niranjana, Former Vice Chancellor of Gulbarga University and current Professor and Chairman of the Department of Biotechnology at the University of Mysore, underscored the urgency of modernizing agriculture to meet the increasing food demands of the growing population.

Dr. Niranjana extensively discussed the pivotal role of genetic modification in improving crop production. He addressed the challenges posed by climate change and soil health while emphasizing the benefits of biotechnology in enhancing food security.

Throughout his presentation, Dr. Niranjana provided examples of genetically modified (GM) foods to showcase the potential of this technology in agriculture. He concluded by emphasizing the careful adoption of GM technology, which has the capacity to significantly increase crop production while promoting eco-friendly farming practices. His insights shed light on the potential of biotechnology in shaping a sustainable and food-secure future for the nation.

The session's chairman expressed appreciation for the significance of seeds as the primary agricultural input and stressed the need for research and development to prioritize climate-resilient crop varieties.

The salient points outlining the deliberations from this session are:

- **Climate change challenges and Smart cultivation practices:** The impact of climate change, including rising temperatures, pests, diseases, water scarcity, and desertification, was discussed. The session emphasized the importance of using climate-resilient crop varieties like Navara rice, Borah rice, and salt-tolerant wheat to manage these challenges.
- **The significance of quality seeds for the Second Green Revolution:** The success of the Second Green Revolution was highlighted, emphasizing the critical role played by the availability of high-quality seeds.
- **Soil health and its connection to healthy crops and food:** The session emphasized the integral link between healthy soils, healthy crops, nutritious food, and the overall well-being of the people and the nation.
- **Climate Smart Agriculture and its benefits:** Climate Smart Agriculture was presented as a solution for sustainable productivity growth, income increase, adaptation, resilience building, and reduced greenhouse gas emissions. It was discussed how this approach integrates global supply chains, sustainable production systems, technological innovations, and diverse consumer bases.

- Sustainable use of plant genetic resources: The impact of climate change on plant genetic resources and the significance of their sustainable use and development in addressing climate change challenges were discussed. Both conscious and unconscious selection methods for crop protection were explored.
- Conservation methods for genetic resources: The session covered ex-situ conservation methods such as in-vitro techniques, pollen collection, tissue culture, and DNA preservation, along with in-situ conservation methods that involve preserving natural habitats, ecosystems, and bio resource heritage sites.
- Biotechnology and its contributions to food security: The challenges posed by climate change and soil-borne pathogens in agriculture, particularly in irrigation-dependent food production, were addressed. The role of biotechnology, exemplified by BT cotton production in India, in enhancing food security, increasing crop productivity, reducing insecticide use, and promoting poverty alleviation and income growth was discussed.
- Genetically modified (GM) foods and their production: The session explored the production of genetically modified (GM) foods using genetic engineering technology. Examples such as BT brinjal, corn, golden rice, tomato, and herbicide-resistant BT cotton were highlighted as prominent instances of GM food production.



Technical Session V

- Chairman** : Dr. K.P. C Rao, Honorary Fellow, ICRISAT
- Co-Chairman:** Dr. P.S. Rao, Professor and Head, Agri-Food, IIT Kharagpur
Dr. R. Srikanth, Head, Innovation Hub (iHub)
Senior Scientist (Digital Agriculture), ICRISAT
- Rapporteurs** : Mr. Narendra Kumar, Assistant Professor, FT, VFSTR
Dr. V. Dinesh Rahul, Assistant Professor, AHS, VFSTR

A total of three keynote and invited papers were delivered during this session.

1. Climate Information Services for Climate-Smart Agriculture

-Dr. K.P.C. Rao

Dr. K.P.C. Rao, Honorary Fellow at ICRISAT, strongly advocated the utilization of the Intelligent Systems Advisory Tool (ISAT) as a comprehensive solution for accessing, analyzing, generating, and disseminating contextualized advisories from multiple sources. This tool empowers users in the agricultural sector to make well-informed decisions while planning and managing their agricultural systems.

Dr. Rao highlighted that ISAT integrates a wealth of information, including historical climate data analysis, climate impacts on crop production, short, medium, and long-range climate and weather forecasts, and locally relevant production technologies. By utilizing this extensive data, the tool is capable of generating location-specific advisories with actionable information tailored to the needs of farmers.

Pilot studies conducted in India, Kenya, and Zambia have demonstrated the efficacy of ISAT. The tool proved invaluable to farmers, enabling them to make timely and appropriate decisions, manage their farms profitably, and reduce risks effectively. ISAT stands as a promising advancement in agricultural technology, empowering farmers to adapt and thrive amidst changing climate conditions.

2. Climate Smart Agriculture in Asia: Prospects and Perspectives

– Dr. Ancha Srinivasan (Online Presentation)

Dr. Ancha Srinivasan, Principal Climate Change Specialist and Climate Change Focal Point for Southeast Asia at the Asia Development Bank, delivered a comprehensive talk on Climate Smart Agriculture in Asia and its future prospects.

Dr. Srinivasan addressed the pressing challenges to food security in Asia and globally, particularly the need to increase food grain production by 2050 while taking into account the impacts of climate change. He underscored the importance of adopting climate-resilient Smart agricultural practices, advanced technologies, and efficient water and greenhouse emission management.

Moreover, he highlighted the significance of promoting the adaptation of good manufacturing practices (GMP) in agribusiness to enhance overall productivity and sustainability.

Dr. Srinivasan also discussed the adverse effects of climate change on food prices, water scarcity, food safety, and productivity. Recognizing these challenges, he emphasized the importance of implementing game-changing policies and greenhouse technologies to foster climate-responsive agriculture production.

In conclusion, Dr. Srinivasan stressed the urgent need to prioritize climate-responsive agriculture production technologies and sustainable practices in India to ensure food security.

and safeguard the environment. His insights shed light on the crucial role of Climate-Smart Agriculture in addressing the complex challenges facing the agricultural sector in Asia and beyond.

Dr. R. Srikanth, Head of Innovation Hub (iHub) and Senior Scientist at ICRISAT, delved into the integration of agriculture into digital platforms, focusing on three essential pillars: ideate, mitigate, and impact.

Dr. Srikanth highlighted the pivotal role played by digital platforms in agriculture, particularly during the challenging times of the COVID-19 pandemic. He emphasized the transformative impact of using Artificial Intelligence (AI) in various aspects of farming, such as crop monitoring, pest control, remote sensing, drones, and the Internet of Things (IoT), to benefit farmers.

The presentation included a classification of digital agriculture and discussed the challenges encountered while implementing Artificial Intelligence (AI) in agricultural practices. Dr. Srikanth emphasized the importance of various entities, such as Farmer Producer Organizations (FPOs), Self-Help Groups (SHGs), and agribusinesses, in facilitating the adoption of digital agriculture.

In conclusion, Dr. Srikanth underscored the urgent need to embrace digital tools to effectively address the threats posed by climate change to agriculture and food security. His insights shed light on the potential of digital integration in agriculture and its capacity to enhance sustainability, productivity, and resilience in farming practices.

The Chairman of the session extensively discussed the economic impact of climate change on agriculture in developing nations. He underscored the urgency of leveraging technology to create improved market and advisory systems to address the challenges posed by climate change in the agricultural sector.

The actionable points out of this session are:

- Adoption of climate-resilient Smart agriculture: The session emphasized the importance of farmers embracing advanced technologies, efficient water management techniques, and greenhouse gas emission management strategies developed by ICAR to ensure climate-resilient and sustainable agriculture.
- Promotion of Good Manufacturing Practices (GMP) in agribusiness: Promoting GMP to reduce carbon emissions, meet sanitary and phytosanitary requirements, and utilize agro-climatic conditions. It also emphasized the introduction of climate-resilient crop varieties and the implementation of essential policies.
- Game-changing policies for productivity and climate change mitigation: The session stressed the necessity of implementing impactful policies that enhance agricultural productivity and effectively address the challenges posed by climate change, including the adoption of efficient greenhouse technology.
- Utilizing AI in agriculture: Prioritizing the application of Artificial Intelligence (AI) in various aspects of farming, including crop monitoring, pest control, weather forecasting, drones, irrigation, satellite data analysis, and providing information to farmers.

- Addressing challenges and case studies: The session covered the challenges faced by AI in agriculture and showcased case studies of innovative technologies. It also focused on the efficient handling of agricultural goods among stakeholders in Farmer Producer Organizations (FPOs), Self-Help Groups (SHGs), and Agribusinesses.
- FPO digital implementation: The session shed light on how the digital implementation of Farmer Producer Organizations (FPOs) has piqued farmers' interest in agricultural production, highlighting the potential benefits of technology in transforming farming practices.



Technical session VI

Chairman : Dr. R.K. Mathur, Director, ICAR-IIOR
Co-Chairman: Dr. M. Sheshu Madhav, Director, ICAR-CTRI
Rapporteurs : Ms. N. Kavya, Assistant Professor, AHS, VFSTR
Ms. M. Kalyani, Assistant Professor, AHS, VFSTR

A total of three invited papers were presented during this session.

1. Climate Resilient Oil Seed Crops: Approaches, Technologies and Future Prospects

-Dr. R. K. Mathur

In his presentation, Dr. R. K. Mathur, Director of ICAR-Indian Institute of Oilseeds Research, discussed the reasons behind low oilseed productivity, including a significant portion of rainfed cultivation and cultivation on marginal and sub marginal lands. He emphasized the urgent need to change seed varieties and improve farmer-state linkages to achieve better seed replacement rates.

Dr. Mathur also highlighted the importance of climate-resistant technologies, particularly for soybean, gram, and oilseeds, to address the challenges posed by climate change. He discussed how climate change can lead to yield reductions and price increases and emphasized the need to tackle issues like rising import bills, shrinking land availability, and emerging pests in the oilseed sector.

Furthermore, Dr. Mathur emphasized the utilization of plant genetic resources and provided insights into the status of oilseed germplasm collections and traits for pyramiding in various oil crops.

The presentation explored various strategies for Smart agriculture aimed at enhancing oil production. These strategies included harnessing root architecture, drought screening, improved agronomic practices, and the utilization of nano-micronutrients. By adopting these innovative approaches, the oilseed sector can improve productivity and contribute to meeting the growing demand for edible oils sustainably.

2. Climate Smart Interventions for Sustainable Tobacco Production

-Dr. M. Seshu Madav

Dr. Seshu Madav, Director of ICAR-Central Tobacco Research Institute (CTRI), presented on the current scenario of tobacco production, with a focus on the cultivation of FCV (Flue-Cured Virginia) type tobacco in Guntur, covering an extensive area of 1.4 lakh hectares in India.

Dr. Madav emphasized the importance of specific soil conditions, such as sandy loam, and well-distributed rainfall for successful tobacco cultivation. He also discussed the impact of high temperatures on the quality and production of tobacco.

To address the challenges posed by climate change, Dr. Madav outlined various climate-resistant interventions, including the use of climate-tolerant tobacco varieties, improved agronomic practices, rainwater harvesting, dense planting, and moisture conservation techniques. He also highlighted the adjustment of fertilizer doses and the incorporation of labor-saving technologies.

Notably, these interventions have led to significant achievements, including increased production and a doubling of farmer income.

Furthermore, Dr. Madav shared CTRI's initiatives for climate-Smart villages, demonstrating their commitment for promoting sustainable agricultural practices. Additionally, the institute plans to expand its mandate to include the cultivation of additional crops like chilli, turmeric, and castor, further contributing to the region's agricultural diversification and climate resilience efforts.

3. Millets Processing and Value Addition: An Alternative Way to Meet Climate Smart Agriculture for Transforming Food Security to Nutritional Security

-Dr. P.S. Rao

Dr. P.S. Rao, Professor and Head of Agri-Food at IIT Kharagpur, focused on millet processing and value addition, shedding light on the nutritional benefits of these grains and the challenges posed by low market prices.

Dr. Rao highlighted the numerous health benefits of millets, which are rich in proteins, antioxidants, and vitamins, and their suitability as gluten-free food options. Despite these advantages, he addressed the lack of farmer interest in millet cultivation and identified challenges in millet processing, including anti-nutritional factors, short shelf life, and inadequate processing techniques.

To address these challenges, Dr. Rao discussed machinery-based processing methods and their potential in improving millet storage stability, utilization, and the production of various millet-based products, such as snacks, bakery items, and beverages.

In conclusion, Dr. Rao emphasized the necessity for technological advancements and solutions to promote millet production. He encouraged the inclusion of millet meals in daily diets to not only improve nutrition but also to create a market demand that benefits farmers and promotes the sustainable cultivation of these highly nutritious grains.

In the session, the chairman highlighted the importance of millets in the context of climate change. He emphasized how millets can serve as climate-resilient crops, well-suited to withstand the challenges posed by changing climatic conditions.

Furthermore, the chairman mentioned the concerning trend of decreased crop yields in different oilseed crops attributed to the impact of climate change. This underscores the urgent need for developing and adopting climate-resilient varieties to ensure sustainable oilseed production.

- Increasing variety seed replacement rates: It is crucial to enhance variety seed replacement rates each year to establish better linkages between farmers and research stations. This would lead to the adoption of improved and climate-resilient crop varieties.
- Impact of reduced oilseed cultivation: The increased import of oil is a consequence of the shrinking land area dedicated to oilseed cultivation, influenced by climate change, and the adoption of dryland farming practices for oilseeds.
- Adjusting fertilizer doses: To mitigate fertilizer losses caused by leaching, adjustments in fertilizer doses are essential to ensure effective nutrient utilization and reduce environmental impact.
- Need for climate-resilient FCV tobacco varieties: In the face of changing climate conditions, there is a demand for Flue-Cured Virginia (FCV) tobacco varieties with traits like shorter duration and uniform maturity. Ensuring a consistent supply of such seeds to farmers is crucial.

- Climate-Smart villages: CTRI has taken the initiative to adapt five villages under the Prime Minister Kaushal Vikas Yojana (PMKVY) to make them climate-Smart, demonstrating efforts to promote sustainable practices and resilience in agriculture.
- Concentrating on millet processing: To encourage millet cultivation among farmers, there is a need to concentrate on millet processing. This would create value addition and promote the adoption of these climate-resilient crops.



Technical session VII

- Chairman** : Dr. Alapati Satyanarayana, Former Director of Extension, ANGRAU
Executive Director, Sangam Seeds
- Co-Chairman** : Dr. Y. Ashoka Rani, Former Professor & Head,
Dept. of Crop Physiology, Agricultural College, Bapatla, ANGRAU
- Rapporteurs:** Dr. S. Ayyanna, Assistant Professor, AE, VFSTR.
Mrs. K. Himabindu, Assistant Professor, AHS, VFSTR.

During this session, six oral presentations were delivered, and the key points that emerged from these presentations were as follows:

- Formulation and Development of efficient technologies for better resource conservation.
- Assessment and quantification of major cropping systems for green gas emission and to contain potential emitting forces (E.g., Methane, NO and CO₂).
- Exploring the potential of biochar in rice cropping systems to enhance the soil physico-chemical properties and better crop productivity.
- To establish the prominent rice-wheat system as carbon negative to reduce the environment footprint of agriculture.



Technical session VIII

- Chairman** : Dr. S.R. Niranjana, Former Vice Chancellor of Gulbarga University
- Co-Chairman** : Dr. B. Sarath Babu, Former Principal Scientist and Head,
ICAR-NBPGR, Regional Station, Hyderabad, President, PPAI
- Rapporteurs** : Ms. N. Venkata Vyshnavi, Assistant Professor, AHS, VFSTR
Ms. Ananya, Assistant Professor, FT, VFSTR

Six oral presentations were presented in this session. The points emerged from their presentations were.

- There is a need for development of more eco-friendly cost-effective sprayers and make them available for farmers.
- Robotics application in the field of agriculture to fulfill different on farm practices reduce the efforts of farmers making agriculture more efficient.
- Screening of varieties tolerant to different biotic and abiotic stresses to develop varieties tolerant to changing climate is needed.

Day 3: 29th March 2023

Technical session IX

- Chairman** : Dr. M. K. Naik, Director of Extension, UAS, Raichur
Former Vice Chancellor, UAHS, Shivmogga
- Co-Chairman** : Dr.T.V. Satyanarayana, Former Dean (Agril. Engineering) and Registrar,
ANGRAU. Registrar, MNR Educational Trust
- Rapporteurs** : Dr. T. Prabhakar Rao, Assistant Professor, AE, VFSTR
Ms. P. Amrutha Varshini, Assistant Professor, AHS, VFSTR

During this session, three keynote and invited papers were delivered.

1. Aflatoxin Contamination of Food Commodities and its Sustainable Management: A Global Concern

- Dr. M. K. Naik

Dr. M. K. Naik, Director of Extension, UAS, Raichur Former Vice Chancellor, UAHS, Shivmogga, presented on several key topics. He discussed the 5-year projections for the Agricultural GDP growth rate taking into account the changing agricultural landscape. Additionally, he emphasized the importance of food security, focusing on the aspects of healthy, safe, high-quality and sufficient food.

Moreover, Dr. Naik shed light on the impact of mycotoxins on both humans and animals, and he explored cost-effective techniques for detecting these mycotoxins in maize, chilli and groundnut. In closing remarks, he stressed that while complete eradication of plant diseases might not be feasible, they can be effectively managed through the adoption of Good Agricultural Management Practices.

2. Systems Approach and Investment Planning to Mainstream Climate Smart Agriculture under Drylands

- Dr. Shalander Kumar

Dr. Shalander Kumar, Deputy Global Research Program Director for Enabling Systems Transformation at ICRISAT, emphasized the significance of institutional interventions at the village level, necessitating the adoption of cutting-edge technologies. He discussed the importance of whole farm modeling, which assesses sustainability from the farm to the landscape and value chain, enabling precise identification of requirements, action planning, and development strategies.

Dr. Kumar also shed light on the concept of contingent crop planning, utilizing weather-Smart technology to optimize agricultural practices based on weather conditions. Furthermore, he underscored the vital role of district-level day-to-day action plans in promoting climate-Smart agriculture among farmers, ensuring effective climate change adaptation and mitigation strategies.

3. Agricultural Drainage for Improving Soil Health

-Dr. T. V. Satyanarayana

Dr. T. V. Satyanarayana, Former Dean (Agril. Engineering) and Registrar, ANGRAU, Present: Registrar i/c, MNR Educational Trust presented statistical data on twin challenges of water logging and salinity in India and specifically in Andhra Pradesh. He highlighted the

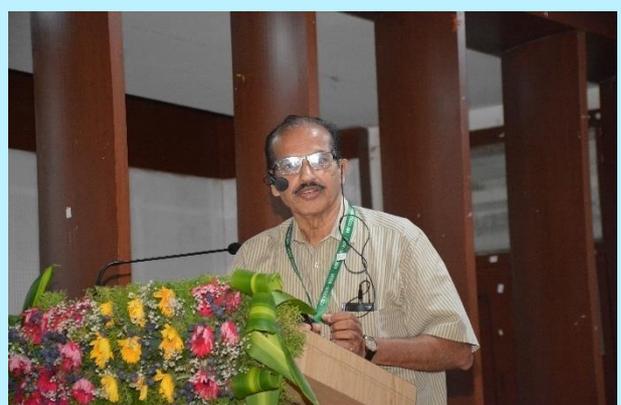
significance of proper drainage systems in farmlands to address these issues and maximize water productivity.

Furthermore, Dr. Satyanarayana discussed the classification of saline soils based on their electrical conductivity (EC), pH, and exchangeable sodium percentage (ESP) values, providing insights into their characteristics and management strategies.

In conclusion, he emphasized the need for technological interventions to identify lands affected by drainage problems and transform them into cultivable farmlands, ensuring sustainable agriculture practices and effective land utilization.

The session chairman expressed the opinion that food security can only be achieved through the implementation of sustainable and effective management practices. The papers presented in this session primarily focused on:

- Aflatoxins present in grains and fruits lead to seed decay and cause damage to both human and livestock health.
- The application of whole farm modeling using a systems approach promotes sustainability and integrated agro-system strategies for developing climate-Smart action plans at the village level.
- The adoption of climate-Smart agriculture technologies over traditional farming methods has reduced the yield risk in drought-affected regions of Telangana
- Unfortunately, drainage has not received as much attention as irrigation from both individuals and governmental agencies.
- Surface drainage, subsurface drainage, or a combination of both have been proven to be the most effective and viable solution to the twin problems of waterlogging and salinity.



Panel Discussion I

Strategic Approaches towards Developing Climate Smart Landscapes and Food Systems

Chairman : Dr. Shalander Kumar, Deputy Global Research

Program Director, Enabling Systems Transformation, ICRISAT

Moderator : Dr. T. Ramesh Babu, Dean, SAFT, VFSTR

Panelists : 1) Dr. Alapati Satyanarayana, Executive Director, Sangam Seeds

2) Sri Kakamunu Sambasiva Rao, Vice President, NRI Seeds, Guntur

3) Sri A. Venkata Ram, General Manager, NRI Seeds, Guntur

4) Sri N.V. Krishna, Executive Director, Dasarad Prasad Fertilizers Pvt. Ltd.

5) Dr. KPC Rao,

6) Dr. Y. Vara Prasad

Rapporteurs: 1) Dr. A. Aruna Kumari, Assistant Professor, AHS, VFSTR

2) Ms. Madhuri, Assistant Professor, FT, VFSTR

The panel discussion Chairman Dr. Shalander Kumar shared insights on climate-Smart landscapes and food systems, emphasizing three crucial aspects: enhanced food safety, climate-resilient agriculture with reduced emissions, and the promotion of agribusiness to support climate-Smart food systems. He highlighted the importance of aligning crop and farming systems with natural resources. Socio-economic conditions and market demands.

The discussion commenced with the chairman's valuable remarks, encouraging active participation from all panelists, including farmers, industrialists, and scientists. Throughout the discussion, various recommendations were made, and the following were agreed upon:

- The once successful genotypes of the 90s are now facing new diseases due to the deterioration of soil health and changing climate. Consequently, there is a pressing need to develop climate-resilient crop varieties and implement sustainable agricultural practices.
- By focusing on reduced emissions and promoting social forestry, the agriculture sector can play a significant role in mitigating global warming.
- It is essential to distinguish between increased productivity and optimized productivity, encouraging farmers to adopt resource-efficient practices for better outcomes.
- An evaluation of current land use practices is imperative to identify areas for improvement, fostering the development of a climate-Smart landscape.

To achieve a climate-Smart landscape, it is crucial to adopt practices that enhance soil health, conserve water, reduce greenhouse gas emissions, and protect biodiversity.

- Building such a landscape necessitates collaboration among various stakeholders, including farmers, local governments, and civil society.
- Engaging stakeholders actively can help identify local priorities, devise effective strategies, and garner support for implementation.
- Increased awareness and availability of customized fertilizers can promote both intensification and sustainability in agriculture.

- Developing location-specific customized fertilizers based on soil testing is essential to meet the unique needs of different regions.
- Encouraging optimized fertilizer usage, alongside post-emergent herbicide application, enhances fertilizer use efficiency.
- Bridging the gap between stakeholders and agricultural experts can be achieved through efforts to improve farmers' literacy rates and facilitating regular farmer-expert meetings.

During the closing statements, the panelists emphasized the importance of identifying key climate-related challenges specific to the local context. They highlighted that climate change can present itself in various ways, such as temperature variations, alterations in rainfall patterns, and occurrences of extreme weather events, all of which can vary from region to region.

Assess current land use practices: The task involves assessing and evaluating current land use practices, aiming to identify areas that require improvement. This evaluation process will play a pivotal role in developing a climate-Smart landscape that fosters sustainable and environmentally conscious practices.

Engage stakeholders: Effective engagement with stakeholders is crucial for constructing a climate-Smart landscape and food system. This collaboration should involve farmers, local governments, and civil society, ensuring collective support and commitment towards sustainable and climate-resilient practices.

Incorporate agro ecological principles: By incorporating agro ecological principles, food systems can be transformed into sustainable and resilient systems that effectively combat climate change, foster biodiversity, and provide equitable livelihoods.

Adopt innovative technologies: Embracing innovative technologies is essential for constructing climate-Smart landscapes and food systems. These technological advancements hold significant potential in addressing environmental challenges and promoting sustainable agricultural practices.

Promote policies that support climate-Smart practices: Encouraging policies that endorse climate-Smart practices can play a pivotal role in incentivizing and supporting their widespread adoption. Government initiatives and regulations can create a conducive environment for sustainable agriculture and contribute to climate change mitigation efforts.

This entails promoting policies that advocate for sustainable agriculture, renewable energy utilization, and effective management of natural resources. Such policies are vital in fostering environmentally conscious practices and enhancing resilience to climate change impacts.

Monitor and evaluate progress: Regular monitoring and evaluation are essential for gauging the progress of implemented strategies and ensuring their efficacy in adapting to evolving conditions. This iterative process enables timely adjustments and improvements to enhance the overall effectiveness of climate-Smart initiatives.



Panel Discussion II

Farmers level Strategies for promoting Climate Smart Agriculture

Chairman : Dr. Y. Venkateswara Rao, Chairman Rythu Nestham

Co-Chairman: 1) Mr. N. Parthasaradhi, Tech turned Farmer, Ananthapur

2) Dr. M. Mohan Reddy, Progressive Farmer, Chittoor

Panelists : 1) Sri M.C.V. Prasad, Tirupati

2) Sri Sri Hari, Narakoduru

3) Sri Sai Poornachand, Tenali

4) Sri O. Raghavaiah, Vejjandla

5) Sri Jonna Sambasiva Rao, Sekuru

6) Sri Mattupalli Pothuraju, Suddapalli

7) Sri Umamaheshwara Rao, Vadlamudi

8) Sri Ankamma Reddy, Penumaka

9) Sri Devarapalli Satish babu, Selapadu

Rapporteurs: Ms. K. Sravya, Assistant Professor, AHS, VFSTR

Dr. Y. Varaprasad, Assistant Director, AHS, VFSTR

The panel discussion Chairman addressed the concerning state of the balance of nature. citing the escalating global climate warming, increased earth temperatures, and decreased rainfall as a result, suffering from the adverse impacts of droughts, floods, and crop losses, leaving farmers despondent and discouraged from continuing agriculture. The Chairman expressed concern about the implications of such circumstances on the country's future and progress.

The panel discussion commenced with the Chairman's insightful remarks, which spurred active participation from all panelists, including farmers, industrialists and scientists and arrived at the following recommendations:

- Farmers continuously face yield losses in crops due to natural calamities like cyclones, floods, and climate aberrations such as uneven rainfall patterns and temperature fluctuations. Additionally, pest and disease epidemics further exacerbate the challenges.
- Climate change has a detrimental impact on the economic growth of farmers, leading to a loss of interest in farming and a rise in suicides and suicidal attempts due to the exponential risk factor associated with climate vagaries.
- The increase in temperature has led to a reduction of 12.8 percent in crop production. While decreasing rainfall has resulted in a decline in groundwater resources. Storage facilities need improvement to ensure better crop preservation.
- The current crop insurance provided by the government to farmers under natural calamities is inadequate. It is crucial to enhance the scale of compensation to alleviate the financial losses incurred by farmers.
- To achieve sustainable agriculture and economic well-being for farmers, the extension systems under ICAR, KVKs, State Agricultural Universities, and NGOs should actively guide farmers towards organic and integrated farming approaches.

- The Minimum Support Price (MSP) for location-specific crops should be increased. Considering the variations in climate from one location to another.
- Incorporating millet crops into existing cropping patterns can improve the quality of food systems and reduce farmers' risks, as millet crops require low inputs and have a short duration.
- Emphasizing organic farming with a focus on livestock can enhance soil and crop health, ensuring sustainable agricultural practices
- Farmers should plan for value addition through their crops to attain higher incomes and increase the overall progress of villages.
- The wages of agriculture workers in farming are affected by MSP prices in the market highlighting the need for fair pricing policies
- Management practices in crops should consider climate variations and be planned accordingly to mitigate climate risks.
- Mechanization in agriculture should be prioritized to address labor scarcity and improve efficiency.
- Human resources should be actively involved in agriculture to ensure sustainability and prosperity.
- Farm ponds should be developed on each farmer's field or through community approaches to enhance water management and irrigation.
- Research should focus on minor millets to encourage farmers to grow them with confidence.
- Farmers should carefully consider all aspects, from seed cost to market demand, when selecting crops for cultivation.



Valedictory session

Chairman: Dr. M.K. Naik, Director of Extension, UAS, Raichur and Former Vice Chancellor, UAHS, Shivamogga

Distinguished guest: Prof. P. Nagabhushan, Hon'ble Vice Chancellor, VFSTR

Co-Chairman: Dr. T. Ramesh Babu, Former Dean of Agriculture, ANGRAU & Dean School of Agriculture and Food Technology, VFSTR
Dr. N. Narayan Rao, Associate Professor and Head Applied Engineering, VFSTR

Dr. M. K. Naik, the Chairman of the Valedictory Session, commenced the proceedings by inviting the rapporteurs of the 11 technical sessions to present the highlights of the discussions held during the three days of the GCCSA from March 27th to 29th. He congratulated all the rapporteurs for their excellent compilation of the technical sessions. Dr. Naik then requested Dr. Y. Ashoka Rani, a member of the Board of Studies at AHS, VFSTR, to provide her feedback on the program.

In her feedback, Dr. Ashoka Rani praised Dr. T. Ramesh Babu, the Conference chair, for his outstanding organization of the conference. She acknowledged his dedication over the year in bringing together delegates from esteemed organizations worldwide on one platform. Dr. Ashoka Rani emphasized the importance of providing farmers with reliable rainfall information to aid them in planning their crops effectively. She suggested that farmers would be more receptive to innovative systems created by institutions if they were demonstrated successfully through implementation in specific adopted villages by the institute. Additionally, she highlighted the potential of submitting strategies and ideas derived from GCCSA to government institutes as recommendations for the benefit of farmers.

Dr. N. Narayan Rao, Associate Professor, and Head of Applied Engineering at VFSTR stressed the need to enhance mechanization systems in agricultural lands, particularly focusing on pre and post-harvest technologies for further improvement. He emphasized the significance of utilizing the knowledge gained from the three-day conference to bridge the gap between farmers' income generation and climate protection, considering it a collective responsibility.

Dr. T. Ramesh Babu, the former Dean of Agriculture at ANGRAU and currently the of the School of Agriculture and Food Technology at VFSTR, shared his perspective on farmers, describing them as SMART individuals. Each letter in the word "SMART" represented specific qualities: S for Simple, M for Morals and ethics, A for Accountable, R for Responsible, and T for Transparent. Dr. T. Ramesh Babu stressed the significance of integrating Smart technologies to address the unpredictable climate challenges faced by farmers.

He further mentioned that the Global Conference on Climate Smart Agriculture generated valuable recommendations by inviting distinguished speakers from around the world and international organizations, with the support of the Hon'ble Vice Chancellor and university management. These recommendations would be forwarded to the government for consideration.

Dr. T. Ramesh Babu expressed his gratitude to the Department of Agricultural and Horticultural Sciences and the faculties of Applied Engineering and Food Technology for their active participation in the conference.

Dr. Syed Irshan, Coordinator of Food Technology at VFSTR appreciated Dr. T. Ramesh Babu's efforts in fostering collaborative work between Agriculture and Food Technology. He expressed his privilege in being a part of this conference and highlighted the value of knowledge transfer and policy updates provided by experts from various institutions and universities, which were thought-provoking. Dr. Irshan also commended the team efforts of the Department of AHS and the School of SAFT in organizing the program. Moreover, he extended his gratitude to the Honorable Vice Chancellor for providing a platform for growth and learning.

Prof. P. Nagabhushan, the Vice Chancellor of VFSTR, extended his heartfelt congratulations to Dr. T. Ramesh Babu and his team for the successful organization of "The Global Conference on Climate Smart Agriculture." He commended the fruitful execution of the academic event, as well as the inclusion of cultural activities at the end of day one and two, adding a touch of diversity and enrichment to the conference.

Prof. P. Nagabhushan emphasized the crucial need for implementing an insurance mechanism for all farmers, drawing inspiration from the wisdom of Chanakya. He also highlighted the significance of adopting cooperative farming practices, similar to those followed in the United States, as a viable solution by our government.

To ignite the imagination and inspire students, Prof. Nagabhushan presented a technological concept involving drones designed to be similar in size to bees. These drones could release pheromones to guide other bees, thus modulating pollination in a desired direction. This innovative idea exemplified the potential of technology in addressing agricultural challenges.

The Vice Chancellor also emphasized how this conference played a significant role in nurturing the imagination and problem-solving abilities of the young participants, symbolizing the hope for a better future.

Dr. M.K. Naik, the Chairman, expressed his deep appreciation for Prof. Nagabhushan's enthusiastic remarks, which sparked great interest and inspiration among the young scientists and attendees.

Dr. M.K. Naik commenced the valedictory session by announcing and distributing awards to the winners of the poster presentation and oral presentation. He congratulated and appreciated the Honorable Vice Chancellor of Vignan University and the Conference Chair, Dr. T. Ramesh Babu, for their exceptional leadership in successfully organizing the Global Conference on Climate Smart Agriculture, all within a short period since the establishment of the B.Sc. (Hons.) Agriculture degree program.

Dr. M. K. Naik expressed his heartfelt gratitude for the warm hospitality extended to the delegates and dignitaries throughout the conference. He applauded the enthusiastic involvement of all the faculty members in organizing the program and acknowledged the

availability of resources, the academic ambiance, and the courage and confidence displayed during the event.

Reflecting on India's remarkable achievements over the past seven decades, Dr. M.K. Naik acknowledged the country's transformation from a nation reliant on food imports to becoming a wheat exporter to the same countries it once borrowed from. He emphasized the pivotal role played by "farmers' will, political will, and scientific skill," as highlighted by Dr. M. S. Swaminathan, in the success of the Green Revolution. Dr. M. K. Naik also underscored the significance of the Food Security Act enacted by India, aiming to provide food to a population of 80 crores through the Public Distribution System. The agriculture sector's importance, especially during the challenging times of the COVID-19 pandemic, was also emphasized.

Dr. M. K. Naik shed light on the impact of climate change on crop production, citing examples of wheat, chickpea, and mango, as well as the sudden outbreak of black thrips in chilli. He stressed the timeliness and necessity of conducting the Global Conference on Climate Change in Agriculture to address these pressing issues. He commended the gathering of stakeholders, farmers, researchers, and representatives from various departments, unified in a technical session to develop actionable plans.

Praising Dr. Lavu Rathaiah, the Founder of Vignan University, for the innovative concept of a multidisciplinary university, Dr. M.K Naik highlighted that the New Educational Policy also advocates for such institutions to encourage cross-fertilization of ideas among different sectors. He emphasized the importance of agriculture by advocating for a shift from STEM to STEAM (Science, Technology, Engineering, Agriculture, and Mathematics).

Dr. M. K. Naik also stressed the need to address nutritional security to combat issues related to malnutrition, hidden hunger, and increasing germ diseases. He urged young agriculturists and scientists to contemplate the urgent needs that must be addressed in the future through sustainable farming methods. This, he believed, would pave the way for a brighter and more resilient future for agriculture in India.

On behalf of the organizing committee and the Department of Agricultural and Horticultural Sciences, Dr. T. Naresh, Coordinator of AHS Department, extended his heartfelt gratitude to all the distinguished guests, esteemed speakers, researchers, farmers, students, and delegates who graced "The Global Conference on Climate Smart Agriculture" with their presence and active participation.

Dr. Naresh, expressed his special thanks to Honorable Vice-Chancellor, Professor P. Nagabhushan, for his unwavering support and encouragement throughout the conference and for his visionary leadership that has been instrumental in making this event a resounding Success.

Dr. Naresh, extend his sincere thanks to Dr. T. Ramesh Babu, the Conference Chair, for his exceptional dedication and meticulous planning that ensured the smooth execution of his exceptional every aspect of this conference.

Furthermore, he acknowledged the efforts and hard work put in by all the faculty members, researchers and volunteers, whose tireless endeavors played a crucial role in making this conference a grand success.



Three-day int'l conference kicks off at Vignan varsity

EXPRESS NEWS SERVICE
@ Vignawada

ALL farmers should usher in the fourth industrial revolution with smart farming, said Dr. Arvind Kumar, Deputy Director General of ICRISAT Research from Hyderabad.

The Department of Agricultural & Horticultural Sciences of the School of Agriculture & Food Technology, Vignan's University conducted a three-day international conference on 'Climate Smart Agriculture' on Monday. For this conference, special lec-



impact can be achieved, high yields and quality can be increased through smart agriculture by using new technology that has emerged in the fields of agriculture and livestock production.

He said that climate change will be one of the main reasons for the reduction of agri-



యాంత్రికణ సహాయంతో డిజిటల్ పరిష్కారాలను వినియోగించాలి

పొన్నూరు, న్యూఢిల్లీ: రైతులందరూ యాంత్రికణ సహాయంతో డిజిటల్ పరిష్కారాలను వినియోగించాలని హైదరాబాద్ లోని ఇక్రిసాట్ డిప్యూటీ డైరెక్టర్ డాక్టర్ ఆరవింద్ కుమార్ పేర్కొన్నారు.



సావనీర్ను ఆవిష్కరించిన, డాక్టర్ అరవింద్ కుమార్, డాక్టర్ లావు రత్నయ్య

యల్ రాజ్ గంగులను పూర్తిగా ఉద్దేశించి యల్ పాలని ద్వారా ఇన్ ఫోర్సెస్ పాలిట్రామిక్ కం అవకాశం ఉండటం వెల్లడించారు.

నాలుగో పారిశ్రామిక విప్లవమే స్మార్ట్ ఫార్మింగ్

విశాఖ-గుంటూరు : స్మార్ట్ ఫార్మింగ్ తో ప్రపంచదేశాల్లో పారిశ్రామిక విప్లవానికి తెరలేపాల్సిన హైదరాబాద్ లోని ఇక్రిసాట్ రీసెర్చ్ డెవలప్ మెంట్ కేంద్రం డాక్టర్ జనరల్ కుమార్ అన్నారు. విజ్ఞాన్ యూనివర్సిటీలోని స్మార్ట్ ఆగ్రికల్చర్ అండ్ హార్టికల్చర్ సైన్స్ డిపార్ట్ మెంట్ అధ్యక్షులలో స్టేట్ ఆగ్రికల్చర్ అనే అంశంపై మూడు రోజుల పాటు నిర్వహించిన అంతర్జాతీయ స్థాయి కాన్ఫరెన్స్ సోమవారం ప్రారంభించారు. ఈ కాన్ఫరెన్స్ లో ఆగ్రికల్చర్, ఫుడ్ టెక్నాలజీ రంగాలలో నిర్వహించిన 2వ మంది ప్రత్యేక ఉపవ్యాస కాన్ఫరెన్సు నిర్వహించారు. రైతులు, ఆగ్రికల్చర్ అండ్ ఫుడ్ ప్రముఖుల కేంద్ర ప్రత్యేకమైన 2 పాన్లలో డిస్కస్ సెషన్లు ప్రారంభించారు. ముఖ్యఅతిథిగా హాజరైన డాక్టర్ జనరల్ కుమార్ మాట్లాడుతూ స్మార్ట్ ఆగ్రికల్చర్ ద్వారా వ్యవసాయం, పశుపల ఉత్పత్తి రంగాలలో ఉద్ధమించిన కొత్త సాంకేతిక పరిజ్ఞానాన్ని



ఉపయోగించి వనరులను గరిష్టంగా వినియోగించడంతో పాటు పర్యావరణ ప్రభావాన్ని తగ్గించి అధిక దిగుబడులు, నాణ్యతను పెంచవచ్చని అన్నారు. రానున్న కాలంలో విజ్ఞాన్ యూనివర్సిటీలో అనుసంధానమై పనిచేయడానికి కృషి చేస్తామన్నారు. అంతేకాకుండా ఇక్రిసాట్ లో అంటర్ప్రైవ్ విజ్ఞాన్ విద్యార్థులను సాధరంగా ఆహ్వానిస్తున్నామన్నారు. ఐసీఐఆర్ మాజీ డిప్యూటీ డైరెక్టర్ జనరల్ ఎద్దుకేపి, ఉదయపూర్ లోని ఎమ్పీయూఏపీ మాజీ చైర్ మన్ రాజ్ కర్ణాట్ డాక్టర్ ఎన్ఎస్ రాజ్ మాట్లాడుతూ పోస్ట్ హార్వెస్ట్ టెక్నాలజీ సహాయంతో పంట దిగుబడి తగ్గత దాని రక్షణ, పరిరక్షణ, ప్రాసెసింగ్, ప్యాకేజింగ్, పంపిణీ

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మాట్లాడుతున్న డాక్టర్ అరవిందకుమార్

స్మార్ట్ ఫార్మింగ్ తో 4వ పారిశ్రామిక విప్లవం

● ఇక్రిసాట్ రీసెర్చ్ డివీజీ డాక్టర్ అరవిందకుమార్ గుంటూరు(విద్య) మార్చి 27: స్మార్ట్ ఫార్మింగ్ తో 4వ పారిశ్రామిక విప్లవానికి రైతులు సిద్ధ కావాలని ఇక్రిసాట్ డివీజీ డైరెక్టర్ జనరల్ డాక్టర్ అరవింద కుమార్ పిలుపునిచ్చారు. వడ్లమాడి విజ్ఞాన్ విశ్వవిద్యాలయంలో 'స్మార్ట్ ఆఫ్ ఆగ్రికల్చర్', హార్టికల్చర్ సైన్స్ అధ్యక్షులలో క్రైమేట్ స్మార్ట్ ఆగ్రికల్చర్ అనే అంశంపై నిర్వహించిన సదస్సులో ఆయన మాట్లాడుతూ.. వ్యవసాయం, పశుపల ఉత్పత్తి రంగాల్లో ఉద్ధమించిన కొత్త సాంకేతిక పరిజ్ఞానాన్ని రైతులు సద్వినియోగం చేసుకోవాలన్నారు. పర్యావరణానికి హానిలేని వ్యవసాయంతో అధిక దిగుబడులు సాధించాలన్నారు. రైతులు యాంటీకరణ, డివిజనల్ విదా సంపైపు అడుగులువేయాలన్నారు. కార్యక్రమంలో ఉదయపూర్ లోని ఎంపీ యూఏపీ మాజీ చీఫ్ డాక్టర్ ఎన్ఎస్ రాజ్, ఎన్ఐఎఫ్ఓఆర్- ఐసీఐఆర్ మాజీ చీఫ్ డాక్టర్ సీ వాసుదేవప్ప, వ్యవసాయ రంగ ప్రముఖులు తోపాటు విజ్ఞాన్ విద్యాసంస్థల ఛైర్మన్ డాక్టర్ లావురత్నయ్య, వీసీ ఆచార్య వీ.నాగభూషణ్, రిజిస్ట్రార్ ఎంఎస్ రమణాధర్ తదితరులు పాల్గొన్నారు.

గుండెపోటుతో సోంగారు ముఖ్య

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జిల్లా వార్తలు

స్మార్ట్ ఫార్మింగ్ తో మంచి దిగుబడులు

● ఇక్రిసాట్ రీసెర్చ్ డివీజీ డాక్టర్ అరవిందకుమార్



మాట్లాడుతున్న డాక్టర్ అరవిందకుమార్

వీసీ డాక్టర్ మనోజ్ దయాన్, ఐసీఐఆర్ - ఐఐఓ మాజీ డైరెక్టర్ డాక్టర్ కేఎస్ వరప్రసాద్, కర్ణాటక గుల్బర్గా యూనివర్సిటీ మాజీ చైర్ మన్ రాజ్ కర్ణాట్, ఎన్ఐఎఫ్ఓఆర్- ఐసీఐఆర్ మాజీ చీఫ్ డాక్టర్ సీ వాసుదేవప్ప, వ్యవసాయ రంగ ప్రముఖులు తోపాటు విజ్ఞాన్ విద్యాసంస్థల ఛైర్మన్ డాక్టర్ లావురత్నయ్య, వీసీ ఆచార్య వీ.నాగభూషణ్, రిజిస్ట్రార్ ఎంఎస్ రమణాధర్ తదితరులు పాల్గొన్నారు.

వీసీ వనమోహన్ మాట్లాడుతూ స్మార్ట్ ఫార్మింగ్ సహాయంతో మంచి దిగుబడులు సాధించవచ్చని పేర్కొన్నారు. రైతులు యాంటీకరణ సహాయంతో డిజిటిల్ పరిష్కారాలను వినియోగించాలన్నారు. ఐసీఐఆర్ మాజీ చీఫ్ డాక్టర్ సీ వాసుదేవప్ప, వ్యవసాయ రంగ ప్రముఖులు తోపాటు విజ్ఞాన్ విద్యాసంస్థల ఛైర్మన్ డాక్టర్ లావురత్నయ్య, వీసీ ఆచార్య వీ.నాగభూషణ్, రిజిస్ట్రార్ ఎంఎస్ రమణాధర్ తదితరులు పాల్గొన్నారు.

నాలుగో పారిశ్రామిక విప్లవమే స్మార్ట్ ఫార్మింగ్

ప్రజాశక్తి-గుంటూరు స్మార్ట్ ఫార్మింగ్ తో రైతులందరూ నాలుగో పారిశ్రామిక విప్లవానికి నాంది పలికాలని హైదరాబాద్ లోని ఇక్రిసాట్ రీసెర్చ్ డెవలప్ మెంట్ కేంద్రం డాక్టర్ జనరల్ కుమార్ అన్నారు. వడ్లమాడి విజ్ఞాన్ యూనివర్సిటీలో 'క్రైమేట్ స్మార్ట్ ఆగ్రికల్చర్ అనే అంశంపై మూడు రోజుల పాటు నిర్వహించిన అంతర్జాతీయ స్థాయి సదస్సు సోమవారం ప్రారంభం అయ్యింది. సదస్సులో డాక్టర్ అరవింద కుమార్ మాట్లాడుతూ స్మార్ట్ ఆగ్రికల్చర్ ద్వారా వ్యవసాయం, పశుపల ఉత్పత్తి రంగాలలో ఉద్ధమించిన కొత్త సాంకేతిక పరిజ్ఞానాన్ని ఉపయోగించి వనరులను గరిష్టంగా వినియోగించడంతో పాటు పర్యావరణ ప్రభావాన్ని తగ్గించి అధిక దిగుబడులు, నాణ్యతను పెంచవచ్చని పేర్కొన్నారు. రైతులు యాంటీకరణ సహాయంతో డిజిటిల్ పరిష్కారాలను వినియోగించాలన్నారు. ఐసీఐఆర్ మాజీ చీఫ్ డాక్టర్ సీ వాసుదేవప్ప, వ్యవసాయ రంగ ప్రముఖులు తోపాటు విజ్ఞాన్ విద్యాసంస్థల ఛైర్మన్ డాక్టర్ లావురత్నయ్య, వీసీ ఆచార్య వీ.నాగభూషణ్, రిజిస్ట్రార్ ఎంఎస్ రమణాధర్ తదితరులు పాల్గొన్నారు.



నాలుగో పారిశ్రామిక విప్లవమే స్మార్ట్ ఫార్మింగ్

హైదరాబాద్ లోని ఇక్రిసాట్ రీసెర్చ్ డివీజీ డైరెక్టర్ జనరల్ డాక్టర్ అరవిందకుమార్ విజ్ఞాన్ లో ఘనంగా ప్రారంభమైన అంతర్జాతీయ స్థాయి కాన్ఫరెన్స్

చేట్లో, మార్చి 27 (ప్రభావస్థాని): స్మార్ట్ ఫార్మింగ్ తో ప్రపంచదేశాల్లో పారిశ్రామిక విప్లవానికి తెరలేపాల్సిన హైదరాబాద్ లోని ఇక్రిసాట్ రీసెర్చ్ డెవలప్ మెంట్ కేంద్రం డాక్టర్ జనరల్ కుమార్ అన్నారు. చేట్లో మండలం



డిప్యూటీ డైరెక్టర్, రీసెర్చ్, వినియోగం వంటి పద్ధతులను విద్యార్థులకు కూలంకషంగా వివరించారు. అనంతరం అంతర్జాతీయ కాన్ఫరెన్స్ కు సంబంధించిన పుస్తకాన్ని అభివృద్ధి చేశారు. కాన్ఫరెన్స్ లో హైదరాబాద్ లోని



గుంటూరు జిల్లా



VIGNAN'S

Foundation for Science, Technology & Research

(Deemed to be UNIVERSITY)

-Estd. u/s 3 of UGC Act 1956

Collaboration for SDG best practice

Diploma student shines at the 43rd National Throw Ball Championship on 24th October 2023

Vignan University diploma student shines at the 43rd National Throw Ball Championship, securing 1st place! Her exceptional skills and dedication led to this impressive victory. The university community proudly celebrates her achievement



Students showcased their enhanced English proficiency on 21st October 2023

On October 21, 2023, Vignan University students showcased their enhanced English proficiency and communication skills through engaging project demonstrations. These projects highlighted practical application of language skills in real-world scenarios. The event demonstrated the students' growth in both written and oral communication. Vignan University is committed to developing well-rounded communication skills in its students.



Throw Ball (Girls) Competition on 14th September 2023

Directorate of Polytechnic Education is thrilled to announce the organization of exciting throw ball competitions as part of Fresher's Day celebrations! This event is designed to welcome new diploma students and foster camaraderie among peers while showcasing their talents.



First Prize in Ideathon 2024 On 1st February 2023

Mr. AMAN KUMAR and Mr. AMARJIT KUMAR, Third Year B. Pharm. students from the Department of Pharmaceutical Sciences, VFSTR have secured FIRST PRIZE in IDEATHON 2K24 organized by Vignan i-TB (DST-NIDHI) on the occasion of Engineer's Day 2024. The title of ideathon presentation was "Novel VEGFR-2 inhibitors as anticancer agents" (PS Number: SIH 1537) mentored by Dr. MITHUN RUDRAPAL, Associate Professor, VFSTR.

Guest Mr. Moganty Surya Shekhar(Alumni) on 1st January 2023

Mr. Moganty Surya Shekhar, Chief Technology Officer, NOHMS/SIONIC Energy, Rochester, New York, Alumni of Vignan Chemical engineering, delivered a lecture to the students of chemical engineering and petroleum engineering regarding Process Safety and HSE Management in Oil & Gas sector. He discussed mainly three aspects of lithium-ion (Li-ion) batteries. First an understanding of Li-ion battery fundamentals is provided through a brief discussion centered on the aerospace industry's choice to use Li-ion batteries, general performance characteristics, electrochemical reaction basics, and the heat generated during nominal operation. He informed students about the present status of Petroleum and Chemical Industries and what they look for in a candidate when hiring for a job. He also shared his experience and suggested students on how to easily get a job through work experience.



Software Engineering, Real Life Industry Expectations on 1st January 2023

Industry Relations Cell, VFSTR had the honour to host Mr. Balamurugan Ramasamy, Executive Vice-President, HCL Technologies, for an insightful session on Software Engineering and Industry expectations. Mr. Balamurugan compared the true blue student life and learning with that of the real time expectations in industry. Students and faculty of department of CSE discussed the evolving tech landscape and how to stay ahead in the fast-paced industry.



SEED GRANTS FROM VFSTR on 1st January 2023

Dr. Jithendra Chimakurthy Dept of Pharmaceutical Science, School of Biotechnology & Pharmaceutical Science Granted with VFSTR Seed grant in 2023 worth of Rs. 228000/- for Project titled Evaluation of genoprotective effects of marketed herbal formulations using in vitro techniques and project is Under Progress.



Dr. MD. Faiyaz Ahmed Receives Indian Utility Patent for UAV Innovation on 1st January 2023

VFSTR proudly congratulates Dr. MD. Faiyaz Ahmed on receiving an Indian Utility Patent ("A SITE INSPECTION AUTONOMOUS UNMANNED AERIAL VEHICLE SYSTEM") for his groundbreaking work on the development of an indigenous UAV specifically designed for power line inspection in India. This patent, granted for a period of 20 years, reflects Dr. Ahmed's significant contribution to UAV technology and power line maintenance. This achievement is a notable part of Dr. Ahmed's Ph.D research conducted at Motilal Nehru National Institute of Technology Allahabad (MNNITA). Professors from MNNITA extended their appreciation and recognition for Dr. Ahmed's dedication to the field and the practical impact of his work on power line inspection in challenging terrains. VFSTR's Vice-Chancellor Col. Prof. P. Nagabhushan garu also lauded Dr. Ahmed, highlighting this patent as a commitment to his innovation and excellence in research.



ICMR GRANTED RESEARCH PROJECT on 1st January 2023

Indian Council of Medical Research (ICMR), GoI, sanctioned the budget Rs. 223/- lakhs to the Biotechnology Department. The project will be implemented and executed by Dr. Firdoz Shaik, PI. and Prof. T.C. Venkateswarulu, Prof. John Babu, Dr. Ranganadha Reddy, Dr. M. Indira, as Co-PI(s). This research initiative is slated for four years with the potential for annual renewal. The project aims to pioneer the development of novel broad-spectrum antimicrobial agents, transcending the limitations of

traditional antibiotics to combat bacterial infections effectively. Through this rigorous investigation and interdisciplinary collaboration, the research at VFSTR endeavors to pave the way for ground breaking advancements in the fight against antimicrobial resistance, safeguarding public health and well-being on a global scale. Honorable Vice Chancellor appreciated the Dr. Firdoz Shaik and Team for a funded project from ICMR titled "Hydrogel Loaded with Single Metal Atom Nanozymes as Multimodal Biocompatible Missiles for Multidrug-Resistant Bacteria".



DST GRANTED RESEARCH PROJECT 1st January 2023

Dr. N.S. Sampath Kumar, Dr. Anjani Devi Chintagunta, both Associate Professors of Biotechnology Department, have received a research grant of Rs.18,30,000 each from the Anusandhan National Research Foundation (ANRF) under the Teachers Associateship for Research Excellence (TARE) scheme. This substantial funding will support their research endeavors over the next three years. Dr. Sampath Kumar will focus on a project titled Engineered Fish Collagen (3D) Scaffolds Coated with Poly-Herbal Extracts and Its Assessment for Hemostatic Applications while Dr. Anjani Devi Chintagunta will work on Design of nanoliposomal encapsulated PUFA extracted from microalgae and its application as nutraceuticals.



Dr M L N Madhu Mohan on 1st January 2023

Dr M L N Madhu Mohan working as Associate Professor in the Department of Physics at VFSTR, Vadlamudi AP is a trained researcher in the field of thermotropic hydrogen bond liquid crystals and has substantially contributed to the field of Condensed Matter Physics in general and in specific thermotropic hydrogen bond liquid crystals. Dr M L N Madhu Mohan has published in peer reviewed international journals more than 150 articles and filed 40 Indian patents out of which 2 are granted rest are published and waiting for examination. Dr M L N Madhu Mohan has published his research in a variety of journals whose publishers are Elsevier, Taylor & Francis, Springer, Royal Society of Chemistry, Wiley, IEEE etc.



Dr K Venkata Prasad on 1st January 2023

Dr K Venkata Prasad in collaboration with one of my research colleagues has come up with imperative research that has resulted in the published paper titled on Solvent effect, spectral (SERS and UV-Vis) and adsorption analysis of Gliadel (GL) anticancer drug with Ag/Au loaded silica nanocomposites. Impact factor: 5.3 Name of the Journal: Journal of Molecular Liquids Q1 Journal.



Dr.B.Nageswara Rao on 1st January 2023

Microwave assisted synthesis of Fe₂O₃ half-hexagon nanoplates as an anode material for Li ion batteries. In a significant advancement in the field of energy storage devices, Dr.B.Nageswara Rao, Assistant Professor in the Department of Physics, has published paper titled Microwave assisted synthesis of Fe₂O₃ half-hexagon nanoplates as an anode material for Li ion batteries in the prestigious journal, Inorganic Chemistry Communications, known for its impact factor of 4.4.



Dr. K. Venkata Madhuri on 1st January 2023

With an impact factor of 6.3, Dr. K. Venkata Madhuri, a professor, has made a major contribution to the field of materials science by publishing a innovative paper titled "Photochromic response of the PLD-grown nanostructured MoO₃ thin films" in the esteemed journal Applied Surface Science, <https://www.sciencedirect.com/journal/applied-surface-science> (Q1 Journal). In order to ensure consistent functioning of photochromic devices, Dr. Madhuri's study uses the PLD technology, which is renowned for creating high quality, homogenous composition and thickness with exact control.



Dr. Srinivasa Rao Pathipati on 1st January 2023

Dr. Srinivasa Rao Pathipati, an Assistant Professor in the Department of Physics, has made a significant contribution to the field of perovskite blue emitting diodes with the publication of his paper titled "In situ synthesis of high quantum efficiency and stable bromide-based blue-emitting perovskite nanoplatelets" in the journal Nanoscale Advances. which is RSC Q1 journal with an impact factor of 5.6.



Prof. M. Sreenivasulu on 1st January 2023

Paper on Optical Applications of Europium Ion Doped Silicate Glasses WLED, Prof. M. Sreenivasulu, Department of Physics has published a research paper with his team Dr. Vijaya Kumar Chavan and Mr. Varadhi Ravi Teja on Optical Applications of Europium Ion Doped Silicate Glasses: W LED with a novel chemical composition in renowned Q1 journal Silicon.



MoU between Vignan's University and Therellen Pharma Pvt Ltd on 05th December 2024

A Memorandum of Understanding (MoU) has been signed between Vadlamudi Vignan's University in Chebrolu mandal and Therellen Pharma Pvt Ltd in Hyderabad, the university's vice-chancellor Colonel and Professor P Nagabhushan said on Wednesday. At a function organised on the occasion, the University's Dean PCF Dr Dirishala Vijayaramu exchanged documents related to the MoU with Yalamanchili Srinivasa Rao, CEO and Managing Director of Therellen Pharma Pvt Ltd. Speaking on the occasion, the Vice-Chancellor of the university said that under this MoU, two students studying in M.Pharmacy will be given Rs 10,000 per month

for two years. Scholarships will be awarded to five batches of students from the academic year 2024-25 to the academic year 2029-30. In addition, the faculty exchange programme, joint research, faculty training program, academic training program, technical assistance, and development projects can be facilitated.

Joint training programmes, workshops, seminars and industry-academia interactions will be organized to enhance skill development among students, faculty and researchers. Apart from this, we will also provide internship opportunities to students, provide practical industry experience and promote professional growth. We will work together to address the challenges faced by the industries and develop innovative solutions for them. Speaking on the occasion, Yelamanchili Srinivasa Rao, CEO and Managing Director of Therellen Pharma Pvt Ltd, Hyderabad, said, "We are very happy to sign a Memorandum of Understanding (MoU) with Vignan's University. The objective of the agreement is to encourage faculty and students towards new technologies and train them in their respective fields. Vice Chancellor Colonel, Prof. P. Nagabhushan, Deans, Heads, Staff and Students of the respective departments of the University were present on the occasion.



Doctorate for Professor of Vignan's University on 3rd January 2024

Madaka Krishna Chennakesava Rao, assistant professor at the ECE department of Vadlamudi Vignan's University in Chebrolu mandal, has been awarded a PhD degree in electronics and communication engineering by the university, Vice-Chancellor Colonel and Professor P Nagabhushan said on Tuesday. Speaking on the occasion, he said that he has done research on "Investigations on Compact CPW Fed Circularly Polarized Wide and Dual Band Antennas for 5G, Wireless Lan and Satellite Applications". He was guided by Dr Pachiyanan Muthusamy, associate professor at the ECE department at Vignan's University. As part of his research, he published 2 SCI papers and 4 Scopus papers. Vice-chancellor of the university, Prof. P. Nagabhushan, deans, heads and faculty members of the respective departments congratulated him on his PhD degree.



Chemistry Department National Conference Valedictory on 30th January 2024

Suryasarathi Bose, professor at the Department of Materials Engineering at IISc Bangalore, said that converting plastic into a creative and making it into high-value goods with the help of upcycling will not only benefit the environment but also contribute to the economy. A three-day national-level conference on "Frontiers in Polymer Science and Technology (NCF PST-2024)" jointly organized by the Department of Chemistry, Ministry of Science and Technology, Department of Applied Science and Humanities, Vadlamudi Vignan's University, Chebrolu mandal, jointly organized by the Department of Science and Technology and Serb India ANRF, concluded on Saturday. Suryasarathi Bose, professor, Department of Materials Engineering, IISc Bengaluru, who was the chief guest at the event, said that plastic recycling and upcycling has the potential to reuse plastic waste to keep nearby areas clean.

The requirement of raw material required for the production of new plastic will also come down. He also said that the process of recycling plastic will also reduce air pollution. With the help of vitrimers, sea water can be converted into drinking water. The technology of filtering toxic metals out of the water and cleaning more water at a lower cost has been suggested. These materials will be environment-friendly in the future and will be crucial for pollution abatement, he said. These materials are useful in many sectors such as vehicles, packaging, electronics, etc. Dr S Radhakrishnan, Scientist-F, DRDO, HEMRL, Pune, who was the other chief guest at the event, said that high energy materials have the ability to release more energy in smaller quantities by qualitatively designing chemical complexities.

The nature of materials can be understood through computer modeling and simulations. Later, the chief guests were felicitated. The students were presented with certificates of appreciation and cash prizes in various poster presentation competitions organized as part of the national level conference. K Dinakaran, Director, Centre for Research, Tiruvalluvar University, Vellore, K. Dinakaran, Professor and Head, Department of Chemistry, Dr. K.S.N. Raju, Scientist, ICT, Hyderabad, Dr. C.H. Gupta Chandaluri, Assistant Professor, IIPE, Visakhapatnam, Prof. P. Nagabhushan, Vice-Chancellor, Vignan's University, Deans, Heads, Faculty and Students of the respective departments were present on the occasion.



Chemistry Department National Conference on 28th February 2024

India ANRF, was inaugurated on Thursday. Earlier, the chief guests unveiled the proceedings of the conference by conducting a torch light and unveiling the proceedings brochure of the conference. Prof C V Avadhani of Somaiya Vidyavihar University in Pune, who was the chief guest at the event, said that the field of polymer science and technology affects people's lives in many ways. The polymers used in the medical field will help in the development of durable drug delivery systems and the development of improved surgical equipment. Advanced polymers can also be used in the manufacture of solar panels, batteries and sensors. It is possible to provide high capacity equipment at low cost.

Dr Renjith Thomas, associate professor at St. Berchman's College in Kerala, who was also the chief guest at the event, informed the students that polymers are used in many departments such as plastics, rubber, fibres, packaging, medical devices, etc. Biopolymers play a key role as an alternative to plastic pollution. Smart polymers respond to changes in conditions such as temperature, pH and light. These smart polymers are widely used in the medical field, especially in drug delivery systems.

Another chief guest was Dr. K. Sudhakar, Associate Professor, IIT Bhubaneswar. Vijayakrishna said nanopolymers are designed at a smaller molecular level and used to create high-quality objects. It is being used in medical diagnostics, cancer treatment and energy storage technologies. Recycled polymers can contribute to environmental protection. The development of new products based on polymer science will bring progress to the economy. This technology is widely used in areas such as packaging, military, electronics and food material protection. He believes that modern research in polymer science can provide lasting changes to our society that will give a proper direction to industries as well as the environment.

Later, the chief guests were felicitated. Dr. S. Prashanth Kumar, Scientist, IICT, Hyderabad, Prof. P. Nagabhushan, Vice-Chancellor, Vignan's University, Deans, Heads, Faculty and students of the respective departments were present on the occasion.



2nd Convocation of online education students ON 27th February 2024

The 2nd convocation of Vignan's university will be held on Saturday, December 7 for students who have completed their MCA and MBA in online learning, open and distance learning, the university's vice-chancellor Prof P Nagabhushan said on Wednesday. Vice-Chancellor Prof. P. Nagabhushan, Registrar Dr. M.S. Raghunathan and deans and heads of the respective departments jointly released the convocation invitation cards at a special function organized at Vadlamudi Vignan's University in Chebrolu mandal. Speaking on the occasion, the Vice-Chancellor of NALSAR University of Law, Hyderabad Prof. Srikrishna Deva Rao will be the chief guest at the 2nd convocation on December 7. On the occasion of the second convocation, the university will award degrees to 858 (MBA-668 and MCA-190) students of online education. The 2nd convocation ceremony will be attended by Dr. Lavu Rattaiah, Chairman and Chancellor of Vignan's Educational Institutions, Vice-Chairman Lavu Srikrishna Devarayalu, Vice-Chancellor Lavu Srikrishna Devarayalu, University Vice-Chancellor Prof. P. Nagabhushan, Registrar Dr. M.S. Raghunathan, Executive Council members, Academic Council, Deans, Heads, Students and Parents.



Constitution Day celebrations at Vignan's University On 13th March 2024

Justice G Ramakrishna Prasad of the Amaravati High Court in Andhra Pradesh said that the Constitution of our country is the highest among the constitutions of the world. On the occasion of The Constitution Day, a special guest lecture programme was organized under the aegis of Vadlamudi Vignan's Institute of Law Department in Chebrolu mandal. Justice G Ramakrishna Prasad of the Amaravati High Court, who was the chief guest at the event, said that the students should study law and work towards ensuring that everyone in the society gets justice. Students studying law should be prepared to learn new things and new technologies every day. In order to protect the freedom and liberties of the citizens of India, the Constitution provides for the right to equality, the right to freedom of person, the right to freedom of person, the right to prevent exploitation, the right to freedom of religion, the right to education and culture, and the responsibility of protecting them has been entrusted to the courts. It is the lawyer who solves every problem in the society. Students pursuing law education should keep an eye on what kind of events and developments are happening in the society every day.

"The profession of a lawyer is challenging and students who want to excel in it should read books and journals well. With digitization and cyber crime on the rise, students studying law should get a grip on new technologies like artificial intelligence, cyber security and data science. Dr. Lavu Rathaiah, Chairman, Vignan's Educational Institutions, said that in the recent past, all sectors like agriculture, industries, hotels, sports, entertainment, etc. have been privatized and every single company is entering into agreements and laws with their respective clients. In this context, there is a huge demand for students who have studied law. He said that law is not just about those who argue in court, but every industry and company has to have a legal department that has studied law. On the occasion of Constitution Day, certificates of appreciation and cash prizes were presented to the students who excelled at various programmes. Vice-Chancellor of Vignan's University Colonel, Prof. P. Nagabhushan, Registrar Dr. M.S. Raghunathan, Deans, Heads, Faculty and students of the respective departments were present on the occasion.



International Workshop on Vignan's ON 20th March 2024

An international workshop will be conducted at Vadlamudi Vignan's University in Chebrolu mandal from December 16 to 23, the vice-chancellor of the university Colonel and Professor P Nagabhushan said. A brochure of the international workshop was unveiled at an event organised on the occasion. Speaking on the occasion, the Vice-Chancellor said that an international workshop on "Innovations in Machine Learning, Artificial Intelligence, Data Science and Modelling (IMLAIDSM-24)" is being organised in hybrid mode under the joint aegis of department of Mathematics and Statistics, Department of ECE, Department of Applied Science and Humanities, University. Dr. Wasir Rahman of the University of Nottingham, UK, Bhuvanesh Yunhelkar, Professor, University of South Florida, USA, Rammohan Malipeddi, Professor, Kyungpook National University, Korea, Professor Zulkar Nen Sabir, Professor, Lebanese American University in Lebanon, Samarjit Kar, Professor Samarjit Kar, Professor, NIT Durgapur, C.S. Sastry, Professor, IIT Hyderabad, Dr. C.S. Sastry, Professor, Arctic University of Norway. IIT Kharagpur's Dr Debasree Guha Adhya, NIT Silchar Dr Rajesh Saha and IIT Delhi professor Niladri Chatterjee will be attending the event. Vice-Chancellor of the University Colonel, Prof. P. Nagabhushan, deans, heads and faculty members of the respective departments were present at the unveiling ceremony.



Udbhav-2K24 launched at Vignan's University On 18th March 2024

National level management meet 'Udbhav-2K24' was held at Vadlamudi Vignan's University in Chebrolu mandal on Monday. The event was organized by the Department of Management Studies, Department of Management Studies, Kaizen (Key to Ambience and Intellectual Zone of Excellence for Novelty) School of Law and Management. Dr. Sushil Kumar, Assistant Professor, IIM, Visakhapatnam was the chief guest at the event. First, the torch was lit and the program was started. Speaking on the occasion, Dr. Sushil Kumar discussed how the management sector is developing due to technological disruptions, globalization and changing social expectations. He emphasized the importance of continuous learning in today's dynamic business environment. All students should develop their communication skills and take advantage of the opportunities that have come their way. We need to learn to make the habit of making the right use of time. The habit of comparing everything with others should be stopped. If possible, we should try to become new start-ups or entrepreneurs.

V.C., Sales Manager, Micro Labs Limited, Hyderabad, was the chief guest at the event. Speaking on the occasion, Murali Krishna Raj shared his personal journey in the corporate world with the students. He explained how effective it is to achieve success in the field of business, sales,

leadership qualities and innovation. He stressed on the importance of data-driven decision-making, customer relationships, opportunities in the marketing sector and adaptability in the face of market changes. Moreover, every student will be able to get better employment and higher positions in life only through skill development to keep pace with the ever-changing conditions, he added. Students should develop activities such as networking, collaboration, decision making and leadership development.

Raghavendra Ponnaganti, deputy manager and alumnus of Dreamplug Technologies Pvt Ltd, Hyderabad, explained the importance of innovation, entrepreneurship and networking and explained about the students' own career paths and how to overcome challenges.

Dr. Lavu Rathaiah, Chairman, Vignan's Educational Institutions, who was the chief guest at the event, said that all students should be ready to leave comfort zones and take up new challenges. Continuous learning and flexibility are required to move forward in a competitive business world.

Later, the chief guests who attended the event were felicitated. As part of 'Udbhav-2K24', the students were presented with young manager, business plan, market makers, team building, HR event, paper presentation, business quiz, mock trading, short film competition, treasure hunt, Mr and Miss Udbhav, solo dance, group dance, Vignan premier league, photography competition, singing contest. Dr. Sushil Kumar, Assistant Professor, IIM, Visakhapatnam and VC, Sales Manager, MicroLabs Limited, Hyderabad. Murali Krishna Raj, Raghavendra Ponnaganti, Deputy Manager, Dream Plug Technologies Pvt. Ltd., Hyderabad, Dr. Lavu Rathaiah, Chairman, Vignan's Educational Institutions, Col. P. Nagabhushan, Vice-Chancellor, Vignan's University, Prof. P. Nagabhushan, Registrar Dr. M.S. Raghunathan, Deans, Heads, Faculty and students of the respective departments were present.



International Seminar in Vignan on December 11 on 15th April 2024

A three-day international seminar will be organised at Vadlamudi Vignan's University in Chebrolu mandal from December 11, vice-chancellor col. P. Nagabhushan said. A brochure for the international seminar was unveiled at an event organised on the occasion. Speaking on the occasion, the Vice-Chancellor said that the Department of Chemistry in the Department of Applied Science and Humanities at the University, the Department of Science and Technology, New Delhi, IFCPAR (Indo-French Centre for the Promotion of Advances Research) and the CEF IPRA (Centre Franco-Indin Pour Law Promotion de Law Research Awanki) "Applying (Organo) Catalysis for Pharma Industry: For Sustaining Future" will be conducted for three days. The

chief guests at the event were Dr. Anis Tili from Lyon- University Claude Bernard, France, Prof. Jean-Francois Poisson from the University of Grenoble, Prof. Thomas Poisson from insa de Raun, Dr. Tatina Bessett from the University of De Raun, Padma Shri Prof. V.K. Singh from IIT Kanpur, Prof. M. Lakshmi Kantham from ICT Mumbai, Prof. M. Lakshmi Kantham from ICT Mumbai, Prof. M. Lakshmi Kantham from ICT Mumbai, Prof. M. Lakshmi Kantham from ICT Mumbai. Prof A T Biju from IISc Bangalore, Prof Nitin T Patil from IISER Bhopal, Prof DB Ramachari from HCU, Prof S Baskar from IIT Kanpur, Prof G Sekhar from IIT Madras and Prof G Ramesh from IIT Madras will be present. Vice-Chancellor of the University Colonel, Prof. P. Nagabhushan, deans, heads and faculty members of the respective departments were present at the unveiling ceremony.



Dr. Mithun Rudrapal, Associate Professor-VFSTR was invited as an Evaluator on 15th April 2024

Dr. Mithun Rudrapal, Associate Professor, Department of Pharmaceutical Sciences, VFSTR was invited as an Evaluator of a National Conference on Computational Advancements in Research and Education for Pharmaceutical Excellence (CARE 2024) organized by Aditya Group of Pharmacy Colleges, Surampalem on 15th & 16th November 2024.



Library as Center of Knowledge, Learning, and Creativity on 14th March 2024

Vignan University celebrated the 57th National Library Week from November 14 to 20, 2024, with a range of vibrant activities organized by the Department of Social Sciences and Humanities (SSH) in collaboration with the NTR Library and the Dean of Student Affairs. The celebration began with an enlightening guest talk by Shri Kiran Prabha, founder and editor of the web magazine Koumudi, which drew a large audience of students who greatly benefited from his insights on the art of storytelling and were convinced of the significance of reading authentic and genuine biographies of great people. As part of the week-long festivities, essay, elocution, and painting competitions were held at the university's NTR Library, drawing enthusiastic participation from students. The essay competition centered on the topic "Libraries as Gateways to Knowledge: Past, Present, and Future," while the elocution competition explored the theme "Preserving Cultural Heritage: Libraries as Custodians of Knowledge." The painting competition, titled "A World of Wisdom Under One Roof," showcased the creativity and artistry of the participants. The events collectively highlighted the significant role of libraries in fostering knowledge, cultural preservation, and creativity, leaving a lasting impact on the student community.



Spirulina lab opened in Vignan on 12th February 2024

The Spirulina lab was inaugurated by the Department of Biotechnology in the Department of Biotechnology and Pharmaceutical Sciences at Vadlamudi Vignan's University in Chebrolu mandal on Tuesday, vice-chancellor of the university, Prof. Col. P. Nagabhushan said. Prof. O.N. Tiwari, Principal Scientist, ICAR-IARI, New Delhi and Dr. Lavu Rathaiah, Chairman, Vignan's Educational Institutions, were present at the event and inaugurated the laboratory and unveiled the brochure. Speaking on the occasion, the Vice-Chancellor said that while spirulina can be processed and delivered to consumers in various forms such as powder, capsules, tablets, etc., spirulina can also be converted into products like protein bar and edible snacks. "Spirulina has tremendous demand in the international market and it can be exported and earned foreign exchange and also benefited the country's economy. The demand for healthy foods is on the rise nowadays and it is easily accepted in the market as spirulina has nutritional properties. Spirulina, also known as a superfood, is rich in proteins and provides 60–70% significant nutritional value. One gram of spirulina is nutritionally equivalent to 300 grams of fruits, vegetables or meat. The value of phycobili proteins in pharmaceuticals is up to Rs 3 lakh per gram.

Spirulina is known to be the most nutritious food and is rich in proteins, vitamins and minerals (magnesium, iron, and calcium). With its growth, it is very good for physical health. He said the cultivation of spirulina will increase employment opportunities for farmers in rural areas. It can be started with a small investment, even on a small scale. Spirulina can be grown in a manner

that is not harmful to the environment and can be grown with little water and less land requirement. The environmental effects of impurities due to its cultivation are minimal. The nutrients present in spirulina provide the required nutrients to the body in a very short span of time. This will help in overcoming malnutrition. It will play a key role in improving the health of children in particular. He also said that one ton of bio-waste can be converted into compost through a decomposer installed in the lab. The lab has been started with the objective of "Waste to Wealth". Chairman of Vigyan Educational Institutions Dr. Lavu Rattaiah, Vice-Chancellor Prof. Col. P. Nagabhushan, Registrar Dr. M.S. Raghunathan, Deans, Heads and Students of the respective departments were present on the occasion.

Vignan Science faculty selected for Sakura Science Project-2024 in Japan on 09th March 2024

Two faculty members of Vaddlamudi Vignan's University in Chebrolu mandal have been selected for the Sakura Science Project-2024 in Japan, the university's vice-chancellor Colonel and Professor P Nagabhushan said. Speaking on the occasion, he said that Associate Professors Dr. N.S. Sampath Kumar and Dr. Chintagunta Anjani Devi of the Department of Biotechnology, University have been selected for the prestigious "Sakura Project-2024", to be conducted by the Japan Science and Technology Agency (JST) at the University of Miyazaki for seven days. Only 12 people from across India have been selected for the event, which will be held from November 10 to 16 at the University of Miyazaki in Japan.

It is heartening to note that two of them have been selected from the University of Sciences. He said the faculty members of the university have developed innovative research in the field of biotechnology and have been selected for the project based on the importance of research. Participation in this project is a great opportunity for the Indian delegation to interact with leading experts there, observe state-of-the-art laboratory techniques and explore new avenues in biotechnology research. Vice-Chancellor Colonel, Prof. P. Nagabhushan, Registrar Dr. M.S. Raghunathan, Deans and Heads of departments congratulated the faculty selected for the project.



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Mr. N. Mohan Krishna on 2nd April 2024

On 2nd November 2024 the department of Chemical Engineering has organized a Industry expert talk on the topic "SITE AND PROCESS SAFETY AND ENTRY-JOB ROLES OPPORTUNITIES" by Mr. N. Mohan Krishna, Junior safety Engineer, BUREAU VERITAS, ABU DHABI. He has delivered valuable insights regarding the safety on site and offsite and career opportunities in the safety department. The guest lecture centered on site and process safety, as well as entry-level job opportunities in the chemical engineering field. The speaker discussed the critical role of safety in the industry, emphasizing the importance of maintaining safe operations across various sectors. Drawing from personal experience, the speaker shared insights into safety protocols and highlighted how essential safety practices are to industrial processes. The session provided guidance on necessary courses and certifications for pursuing a career in process industry safety, both within India and abroad.

Additionally, the lecture explored the diverse roles chemical engineers can assume in safety and other areas, with specific case studies illustrating advancements and best practices in safety

management. Concluding with a discussion on career opportunities and practical advice, the session offered a comprehensive view of safety's role in industry and the pathways available for aspiring engineers in this field.

ECE Faculty Got PHD on 29th April 2024

Vice-Chancellor Prof. P. Nagabhushan said on Tuesday that his university has awarded a PhD degree in electronics and communication engineering to Kommoju Lovaraju, assistant professor, DEPARTMENT of ECE department of Vadlamudi Vignan's University in Chebrolu mandal. Speaking on the occasion, he said that he has done research on the topic "Implementation of an Internet of Things Based Cloud Enabled Service for Smart Agriculture Monitoring and Decision Making System". He is an Associate Professor and Associate Dean, Department of ECE, Vignan's University and Associate Dean- AAA Dr. V. Vijayaraghavan acted as a guide. Vice-Chancellor prof. P. Nagabhushan, deans, heads and faculty members of the respective departments congratulated Kommoju Lovaraju for his Ph.D. degree.



STACKHACK - Application Development Hackathon on 28th April 2024

The Department of CSE, in collaboration with byteXL and ACM, hosted a 48-hour hackathon, "STACKHACK - Application Development Hackathon", on October 28 and 29, 2024, at the NTR Vignan Library, 2nd Floor. Coordinated by Dr. T.R. Rajesh, Mr. P. Vijaya Babu, Mrs. M. Bhargavi, Mr. K. Kiran Kumar, and Mr. Ch. Ravi Kishore Reddy, the event saw teams showcase their skills in application development, with Team Brain Storm Troopers winning first place, followed by Team Spark and Team Web Masters.



Climate Change on 26th March 2024

Dr P Prasada Rao, joint chief environmental engineer, AP Pollution Control Board, said climate change can be effectively controlled by making technology available to all in developing countries like India. The Second International Conference on "Bridging the Gap: Legal and Technical Approaches to Climate Change" was organized by the Department of Law, Vadlamudi Vignan's University, Chebrolu mandal on Saturday. Dr. P. Prasada Rao, Joint Chief Environmental Engineer, AP Pollution Control Board, who was the chief guest at the event, said that the legal steps will pave the way for technical solutions. "Climate change has now become a major problem across the globe and climate change is creating disasters in our country. It is very important to integrate technical solutions with legitimacy to solve this problem. He said funds have been allocated to promote conservation laws, environmental guidelines and scientific research as per the National Climate Change Action Plan (NAPCC)" in the country.

These laws are focused on reducing the use of non-renewable energy sources. Ramesh B Viswanath, a member of the Telangana government's forest committee and solicitor of the Supreme Court of England and Wales, who was also the chief guest at the event, said technologies like clean energy technology, smart agriculture and carbon capture technology are conducive to a good environment. The use of solar, gas and biomass-based energies will reduce the consumption of fossil fuels and reduce pollution. As part of the Haritha Haram scheme in Telangana state, large scale plantation of saplings, expansion of forest areas and increasing greenery have been taken up. The aim of the scheme is to increase the forest cover in the state by up to 33% and increase greenery in every village and town. The aim is to promote plantation saplings through the Harithaharam project and provide an environment that is environmentally sensitive to all. Every gram panchayat and municipality is participating in the programme and working towards protecting the environment by planting saplings. Government departments, educational institutions and NGOs are also participating in the programme.

The programme will not only enhance the capacity to combat climate change, but will also provide plenty of oxygen for the respiration required for human life through forests and lush green areas. Justice Swatanter Kumar, a former judge of the Supreme Court of India and former chairperson of the National Green Tribunal, who was the chief guest online, said it is essential for the present world to be aware of the legal and technological ways to cope with climate change. Technology plays a major role in finding a solution to climate change. Technology is key to reducing carbon

emissions and using renewable energy sources. Solar energy, wind energy and bioenergy can help mitigate climate change. With the increase in usage through these, it will be possible to control pollutants in the future. Air pollution can be reduced by promoting electric vehicles in place of fuel-dependent vehicles. Later, the chief guests were felicitated. Vice-Chancellor of Vignan University Colonel, Prof. P. Nagabhushan, Deans, Heads, Directors and students of the respective departments were present on the occasion.



Amber Enterprises India Limited (Sri City) on 26th March 2024

Amber Enterprises India Limited, located in Sri City, Andhra Pradesh, is a leading manufacturer of air conditioning and refrigeration components. As part of its extensive network, the Sri City facility plays a critical role in producing high-quality products like heat exchangers, indoor and outdoor units, and other key components for the HVAC (Heating, Ventilation, and Air Conditioning) industry. Known for its cutting-edge technology and manufacturing excellence, Amber caters to top-tier brands in India and globally. The Sri City unit emphasizes sustainability, operational efficiency, and local employment, contributing significantly to India's growing electronics and appliances sector.



Amara Raja Electronics Limited (Chittoor) on 25th June 2024

Amara Raja Electronics Limited (AREL), based in Chittoor, Andhra Pradesh, is a prominent arm of the Amara Raja Group, focusing on innovative electronics manufacturing. The company specializes in the design, development, and production of high-quality products like battery packs, power solutions, and embedded systems, catering to automotive, industrial, and consumer electronics sectors. With a state-of-the-art facility, AREL emphasizes sustainability, adhering to global quality standards and environmental practices. It plays a vital role in the local economy by creating jobs and promoting skill development. AREL's commitment to innovation and excellence strengthens its position in India's electronics manufacturing landscape.



Drone Hackathon Award for Vigyan's Industrial Director on 24th June 2024

Prasad Panda, who is serving as industrial director at Vadlamudi Vigyans University in Chebrolu mandal, has been awarded the award in the drone hackathon, the university's vice-chancellor Colonel and Professor P Nagabhushan said on Thursday. Speaking at an event organised on the occasion, he said that Prasad Panda, industrial director of his university, received the third prize in the drone hackathon at the prestigious "Amaravati Drone Summit-2024" organised by the Andhra Pradesh Drone Corporation at CK Conventions in Mangalagiri. Andhra Pradesh Chief Minister N Chandrababu Naidu and Union Civil Aviation Minister Kinjarapu Rammohan Naidu received the award along with a cash prize of Rs 50,000. How can drones be used for urban planning and infrastructure monitoring? The award was given for proposing the most effective approach to the use of drones for project public infrastructure management and urban development. The project will enable authorities to monitor traffic patterns in cities, identify areas where the use of drones, road maintenance or new infrastructure is required. This proactive approach will lead to more efficient urban development, reduction in traffic congestion and better allocation of resources. Working with a team of experts from Vigyan University and SEC Industries, he focused on designing drone-based inspection systems for power lines, gas pipelines and other important utilities, which are designed with the aim of preventing accidents. These drones are constantly monitoring critical infrastructure. These drones will ensure safety, reliability and effective urban planning. Industrial Director Prasad Panda was felicitated by Dr. Lavu Rattaiah, Chairman, Vigyan Educational Institutions, Col. Col. Vice-Chancellor, Prof. P. Nagabhushan and deans, directors and heads of respective departments.



Honorable Vice Chancellor Unveils IT Department News Letter on 24th June 2024

On October 24, 2024, the Honorable Vice Chancellor officially released the IT Department's newsletter, highlighting recent achievements, events, and initiatives within the department. This newsletter serves as a valuable platform for sharing information and fostering communication among students, faculty, and alumni.



MOU Between Vignan's University & ICAR – NAARM on 23rd June 2024

A Memorandum of Understanding (MoU) has been signed between Vadlamudi Vignan's University in Chebrolu mandal and ICAR-NAARM (National Academy of Agricultural Research Management), Hyderabad, the university's Vice-Chancellor Colonel and Professor P Nagabhushan said on Wednesday. Dr. C.H. Sudhakar, Director, ICAR-NAARM, Hyderabad and President, A-Idea. The university's vice-chancellor Colonel and Prof. P. Nagabhushan exchanged documents related to the Memorandum of Understanding (MoU) with Srinivasa Rao. Speaking on the occasion, the Vice-Chancellor of the University said that the MoU will facilitate the faculty training programme, academic training programme, faculty exchange programme, joint research and development projects. Joint training programmes, workshops, seminars and industry-

academia interactions will be organized to enhance skill development among students, faculty and researchers.

Apart from this, we will also provide internship opportunities to students, provide practical industry experience and promote professional growth. We will work together to address the challenges faced by the industries and develop innovative solutions for them. Dr. C.H. Sudhakar, Director, ICAR-NAARM, Hyderabad and President, A-Idea. Srinivasa Rao said, "I am very happy to sign a Memorandum of Understanding (MoU) with Vignan's University. The objective of the agreement is to encourage faculty and students towards new technologies and train them in their respective fields. Vice Chancellor Colonel, Prof. P. Nagabhushan, In-charge Registrar Dr. P.M.V. Rao, Deans, Heads, Staff and Students of the respective departments of the University were present on the occasion.



VIGNAN - PRO-BONO CLUB on 20th May 2024

Justice Ravi Nath Tilhari of the Andhra Pradesh High Court said the government and the judiciary should work together with the aim of bridging gaps in providing legal services through the Pro-Bono Club scheme and providing legal aid to the people. The "Pro-Bono Club" was launched at Vignan's University here on Sunday under the 'Nyaya Bandhu' scheme jointly under the aegis of the School of Law Department and the Ministry of Law and Justice at Vadlamudi Vignan's University in Chebrolu mandal. Andhra Pradesh High Court Judge Justice Ravi Nath Tilhari, who was the chief guest at the inaugural function, said that with the launch of the club, the students pursuing law education should aim to provide free legal aid to the common people, especially the poor. Advocates should strive to bring social justice equally to all by voluntarily providing their capacity and services. He said the scheme will be of great benefit to the weaker sections of the society, especially the poor, women, the elderly and the differently-abled.

This will be a great opportunity to address their rights and issues through the availability of legal services. The Pro-Bono Club is a platform to mobilise lawyers who volunteer where they also provide assistance in civil and criminal cases. It is very important that the legal services are available to all and through this club, the legal services will reach the people. Through this scheme, beneficiaries can either contact lawyers directly or also connect through government legal forums. Lawyers have also called for voluntarily spending their time and becoming partners in social justice. With the launch of the Pro-Bono Club, the judiciary will become more integrated and the

legal aid will be made easier for the common man. Dr. Lavu Rattaiah, Chairman, Vignan's Educational Institutions, who was also the chief guest at the event, said that thousands of cases are already being resolved with the help of artificial intelligence judges in some countries. So all the students should master fields like artificial intelligence, data science, machine learning along with legal education. Only then will the students be informed that they will be able to climb to higher positions in the future.

M Babitha, member secretary of the district and sessions judge of ap state legal services authority in Amaravati, said those who want justice can call 15100 and the district legal services authority panel is coming to sriram vigyan university every Thursday and Saturday. People in need of campus and legal assistance can also visit Vignan campus. Later, the chief guest was felicitated. Ap State Legal Services Authority District and Sessions Judge Member Secretary M. Babitha in Amaravati, 4th Additional District and Sessions Judge R. Sarath Babu in Guntur, Ap State Legal Services Authority Deputy Secretary (Senior Civil Judge) Dr. H. Amara Rangeswara Rao, District Legal Services Authority Secretary P. Leelavathi, Vignan's Educational Institutions Chairman Dr. Lavu Rathaiah, Vignan's Educational Institutions Chairman Dr. Lavu Rathaiah, Vignan's Educational Institutions Chairman Dr. Prof. P. Nagabhushan, Deans, Directors, Heads of Departments and students of the respective departments participated in the meeting.



Students Shine at ICEEICT 2024 with AI Art Analysis on 19th March 2024

The Head of the Department congratulated final year students for presenting their paper, "Analyzing Image Classification on AI-Generated Art vs. Human-Created Art Using Deep Learning," at the ICEEICT 2024 conference in Tiruchirappalli. Their hard work and creative use of AI in image analysis reflect the department's focus on encouraging new ideas and research.



VIGNAN - IR & MBA on 19th March 2024

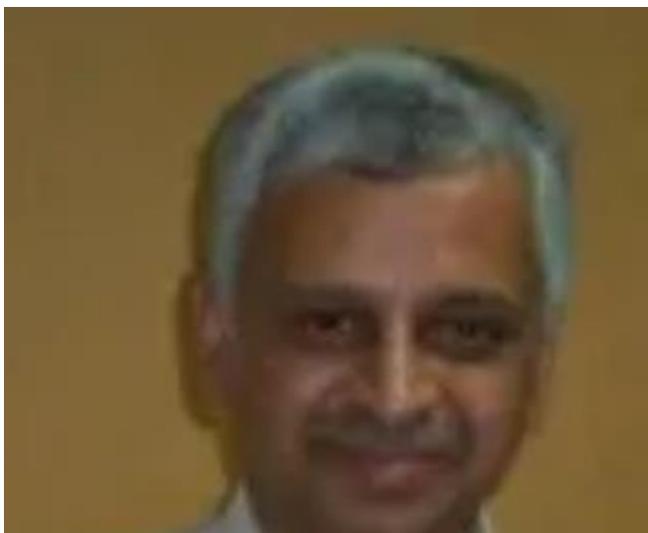
M Maharana, vice-president of Bajaj Chetak Electric in Pune, said, "We will be able to sustain ourselves only if we formulate and develop strategies to keep pace with the changes in the market. A special guest lecture on "Business Development – Sales – Distribution – Career Path Growth – Interview Techniques – Campus to Corporate Specialist", was jointly organized by the Department of Industry Relations, Department of Industry Relations, School of Management and Law Department, Vadlamudi Vignan's University, Chebrolu Mandal. Bajaj Chetak Electric Vice President, Pune, M. Sudhakar was the chief guest at the event. Maharana said that for students to succeed in interviews, it is important to do research and give clear and analytical answers before giving correct answers to the questions. Understanding the current market conditions, identifying the expectations of the people in question, and those with good communication skills will increase your chances of being selected in the interview. Campus to Corporate is about transforming students from academic life to the corporate world and teaching them the capabilities and technologies they need.

Punctuality, customer-centric experience, data expertise and business awareness should be considered as important aspects of this transition phase. He said skill upgradation, appropriate training and practical experience are very important for the youth to succeed in this change. If you want to grow from the primary level to the highest level in the company. It is important for the employee to constantly learn at every stage and understand new technologies and market trends. Also, students who want to set up companies said that the sales department is very crucial for any company and it directly contributes to customer satisfaction and growth in the company's revenue. If good sales representatives are hired, they will be able to understand the needs of the customer and market their product or services effectively. It is important to gain customer confidence if sales are to be the most successful. Similarly, distribution channels are also crucial in the process from where the product is manufactured to reach the customer. Companies with an excellent distribution network can meet customer needs with speed as well as efficiency. Later, the chief guest was felicitated. Deans, heads, faculty and students of the respective departments participated in the programme.



Empowering Minds with Generative AI and Prompt Engineering on 05th March 2024

The Department of Advanced Computer Science and Engineering (ACSE) organized a two-day workshop on "Generative AI and Prompt Engineering" from October 5-6, 2024, coordinated by Dr. Jyotsna Devi Bodapati, Associate Professor, ACSE. The event was graced by the esteemed presence of Mr. Ramamoorthy Saripalli, Director of Vardaan Data Sciences Private Limited, Hyderabad, as the guest speaker. Organized in collaboration with the School of Computing and Informatics and supported by the Faculty Development Academy, the workshop attracted participation from both faculty members and III and final-year students specializing in Artificial Intelligence and Machine Learning (AIML). The workshop provided a comprehensive overview of generative AI, exploring advanced techniques in prompt engineering and practical applications in real-world scenarios. Mr. Saripalli's sessions were interactive and insightful, offering participants a deeper understanding of how to leverage AI models effectively. The knowledge gained from the workshop is expected to significantly contribute to the academic growth and future research initiatives of the participants.



Career Compass: Your Guide to Success and Acing Interviews on 05th May 2024

The Department of CSE organized a Guest Lecture on "Career Compass: Your Guide to Success and Acing Interviews" on October 5, 2024, delivered by Ms. Prardhana Yadla, HR Business

Partner at TCS Hyderabad. The session focused on career planning, interview strategies, and professional growth, providing students with valuable insights and practical tips to excel in their careers and navigate the job market successfully.



World Top 2% Scientist on 04th March 2024

Prof. K. Venkat Rao Garu has been continuously cited as World Top 2% Scientist by Stanford University in Academic year's of 2022, 2023 and 2024.



MINI DNA LAB INAUGURATED IN VIGNAN on 03rd June 2024

The 30M Genomics start-up company in Hyderabad inaugurated its centre at Vadlamudi Vignan's University in Chebrolu mandal on Thursday, the university's vice-chancellor Colonel and Professor P Nagabhushan said. The Vice-Chancellor was the chief guest at the function and inaugurated the "Mini DNA Lab" centre set up jointly by DST-supported Vignan's TBI and 30M Genomics start-ups with a ribbon cut. Speaking on the occasion, he said that the same type of medicine is not enough for different types of people suffering from the same disease in any of the world's humanity and personalized medicine based on their DNA is required. Accordingly, as part of the 30M Genomics startup's personalized medicine, the pharmacogenetics approach will be used to detect doses of the drug in advance.

Moreover, the tests conducted in this lab can identify those who are prone to sudden cardiac arrests in advance. Of those identified, 80 per cent of people could be prevented from being subjected to cardiac arrest. Apart from this, those who are likely to be bald in the future can also be identified. The cardiac screening test and baldness test will be conducted for just Rs 499 and the report will be submitted within 24 hours. Later, he handed over the appointment letters to the students who got jobs in a 30M genomics startup company. Dr Bennett Boskodas, Chief Executive Officer of 30M Genomics Startup Company, Dr M S Raghunathan, Registrar, Dr M S Raghunathan, Director of 30M Genomics Pavani, Deans of the respective departments, faculty and students were present on the occasion.



NSL Textile 3rd June 2024

Faculty members and students, visited NSL Textile Pvt. LTD. Chandole, Andhra Pradesh. In the visit students are observed modern technologies in the Weaving and Chemical processing of Textiles.



Honouring Prof. K. Satchidananda Murty on 1st June 2024

The Department of Social Sciences and Humanities, in collaboration with NTR Library at VFSTR, hosted a centenary celebration honoring Padma Vibhushan Prof. K. Satchidananda Murty. The event paid tribute to his remarkable life, academic achievements, and lasting legacy. A distinguished lineup of speakers participated, including Dr. Yarlagadda Lakshmi Prasad, National President of Vishwa Hindi Parishad and former Member of Rajya Sabha; Sri Mandali Buddha Prasad, Member of the Legislative Assembly from Avanigadda, A.P.; Dr. C. Venkatachalam, ICSSR Senior Fellow at Bharathiar University, Coimbatore; and Prof. B. Sambasiva Prasad, former Professor and Head of the Department of Philosophy at Sri Venkateswara University, Tirupathi. The speakers discussed various facets of Prof. Murty's life and philosophy, particularly his dedication to fostering understanding among diverse religious and philosophical traditions. They emphasized his significant contributions to promoting peace and interfaith dialogue, highlighting his role as a bridge between different cultural perspectives. The celebration not only honored Prof. Murty's legacy but also inspired attendees to continue his vision of dialogue and understanding in a diverse world.



Inaugurated at Vignan's University on 30th June 2024

The "Tree Based Enterprise Incubation Centre (TBEIC)", jointly established by the Vignan Institute of Agriculture and Technology (VIAT), Department of School of Agriculture and Food Technology, Vadlamudi Vignan's University in Chebrolu mandal, jointly organised by USAID, SIFAR and World Agroforestry, was inaugurated on Monday. TegenFel Detmark, Director, USAID General Development Office in India, was the chief guest at the inauguration of the incubation centre and inaugurated the centre with a ribbon cut. Speaking on the occasion, Prof. P. Nagabhushan, Vice-Chancellor, Vignan University, said that the credit for starting a tree-based enterprise incubation centre in the two Telugu states goes to Vignan's university. He also informed that the centre set up at Vignan is the second highest incubation centre in the country.

The main objective of the centre is to enhance the economic growth of the country as well as to influence the interests of the population, develop skills among the rural youth as well as businessmen and make it easier to meet the targets. With the help of this centre, we will be able to add as much value as possible to the wood procured from the farmers, add value to non-wood trees outside forest products and provide suitable facilities for interested amateur incubations. The programme aims to expand forests in seven states of the country (Andhra Pradesh, Assam, Haryana, Odisha, Rajasthan, Tamil Nadu and Uttar Pradesh) for livelihood and ecosystem purposes. Students interested in becoming entrepreneurs can develop skills and knowledge to run sustainable businesses while improving the local environment with the help of incubation centre.

The Tree-Based Enterprise Incubation Centre has been launched with the objective of promoting sustainable agroforestry practices in Andhra Pradesh. By promoting these centres, the centre will not only support the livelihood of the local communities but will also help in spreading trees outside the traditional forest areas. Such efforts are crucial in improving ecosystem services and building climate resilience in the state. Dr. Lavu Rathaiah, Chairman, Vignan's Educational Institutions, who was also the chief guest at the event, said that if saplings are grown extensively even in the outside forest areas, it will improve the livelihood of the people and ecosystem services. He said that excessive felling of forests could lead to an increase in temperatures and increase global warming. We will not be able to bear the consequences of the result. Hence every student has also been called upon to plant greenery saplings in empty spaces. Students have also been advised to work towards ecological balance by growing saplings extensively even in the outer forest areas.

The event was attended by Tegenfel Detmark, Director, GENERAL DEVELOPMENT OFFICE, USAID, India, Soumitri Das, Head, USAID Environment Team In India, Dr. Ravi Prabhu, Senior Advisor, ICRAF-Recommend, TOFI Programme Chief of Party Manoj Dabas, Chairman, Vignan's Educational Institutions, Dr. Lavu Rattaiah, Vice-Chancellor, Dr. M.S. Deans, heads of departments, faculty and agricultural students participated in the meeting



SWACHCHTA HI SEVA on 30th July 2024

On September 30, 2024, the Centre for Environmental Pollution Control (CEPC) of VFSTR in association with School of Applied Sciences and Humanities (SASH) hosted an impactful awareness program to celebrate "Swachhta Hi Seva". This campaign with the slogan quote "Swabhav Swachhata, Sanskaar Swachhat" initiated by the Government of India, aims to promote cleanliness and hygiene as a fundamental duty of every citizen.



A Week of Competitive Events on 30th June 2024

The Department of Social Sciences and Humanities (SSH), in collaboration with the office of the Dean of Student Affairs, VFSTR, organized a week-long series of competitive events from September 26-30, 2024, as part of the Gandhi Jayanti celebrations. The events featured a variety of activities aimed at engaging students and faculty, with participation extended to institutions under the Vignan Group. The series included a Guest Lecture competition for faculty, while students participated in events such as a Mega Quiz, Mock Parliament, Elocution, and Essay Writing competitions. The events sparked enthusiasm and healthy competition, providing a platform for participants to showcase their knowledge, public speaking, and writing skills, with many highlighting themes related to Gandhian philosophy. The winners will be felicitated with handsome prizes during the official Gandhi Jayanti celebration on October 2, recognizing their outstanding performances in the various categories. The week-long events exemplified VFSTR's commitment to honoring Mahatma Gandhi's legacy through meaningful engagement and academic excellence.



Amaravati and Undavalli Historical Sites on 29th May 2024

The Department of Social Sciences and Humanities organized an academic visit for VFSTR's Civil Services students to Amaravati Stupa, Amaravati Museum, Dhyana Buddha Statue, and Undavalli Caves. Coordinated by faculty members Dr. Mohammed Shameem and Ms. Aswathy

Chandra, the visit was a great success. Around thirty students actively participated in the trip event, getting academically benefitted and gaining valuable insights into the historical significance of the historical sites. Students explored the intricacies of the Amaravati's Stupa, museum, and statue, enriching their understanding of Buddhist art and culture. The visit to the Undavalli Caves highlighted remarkable rock-cut architecture, offering them a glimpse into India's rich heritage. Such experiences are crucial for civil services aspirants, as they foster a deeper appreciation of India's diverse history and cultural context, which is essential for informed public service. After the successful completion of the trip, certificates of participation were distributed to the attending students.



Exploring Tomorrow's Automation: Wisdom from a Leading Industry Authority on 28th May 2024

A guest lecture on "Exploring Tomorrow's Automation: Wisdom from a Leading Industry Authority" was conducted on September 28, 2024, by Ms. Y. Pramathi, an alumna and Senior Developer at TCS Hyderabad. The session emphasized PEGA development, automation technologies, and their future implications, inspiring students to explore industry-relevant innovations.



ICNASC-24 International Conference concludes at Vignan's on 28th May 2024

Mehran Mazandarani, a professor at Shenzhen University in China, said it would be better if engineering students were not only aware of the subjects related to their branches but also basic science and mathematics. The Department of Mathematics and Statistics, Department of Applied Science and Humanities, Vadlamudi Vignan's University, Chevrolu mandal, jointly organized a three-day international conference on "International Conference on Non-Linear Analysis and Scientific Computing (ICNASC-2024)" under the joint auspices of the Department of Mathematics and Statistics, Serbs, concluded a three-day international conference on "International Conference on Non-Linear Analysis and Scientific Computing (ICNASC-2024)". Mehran Majandarani, professor at Shenzhen University in China, who was the chief guest at the closing ceremony, said that the differential equations in mathematics should be used to understand the economic conditions in markets and to study integrated economic changes.

These equations will also be used to estimate population growth, spread of diseases, etc. University of Delhi professor Poonam Singh, who was also the chief guest, said, "Improving the quality of a product with the help of orthogonal arrays, how to meet the appropriate standards? They are used to assess the extent to which different standards should be followed. "Good results can be obtained with a fewer numbers of tests with orthogonal arrays to perform repeated tests on technical devices such as planes and rockets. Using orthogonal coding techniques in data transmission can help prevent errors. Madhumangal Pal, a professor at Vidyasagar University, said fuzzy graphs can be used in telecommunication networks. These will be useful in keeping the services from being affected even in case of momentary changes or mistakes. Using fuzzy graphs and topological indices in the areas of computer vision and image processing can easily identify the edges, shapes, and colors in images.

Dr Manaskar, IISER, Bhopal, said inverse problems are used to do the reading of internal organs based on data obtained through scanning methods. These methods are widely used in scanning technologies such as CT scan and MRI. In communication and computer science, inverse problems are used to correct errors in relation to actual data and actual information. Later, certificates were handed over to the students who excelled in various competitions conducted by the students. University Vice-Chancellor Prof. P. Nagabhushan, Registrar Dr. M.S. Raghunathan, Deans, Heads, Faculty and Students of the respective departments were present on the occasion.



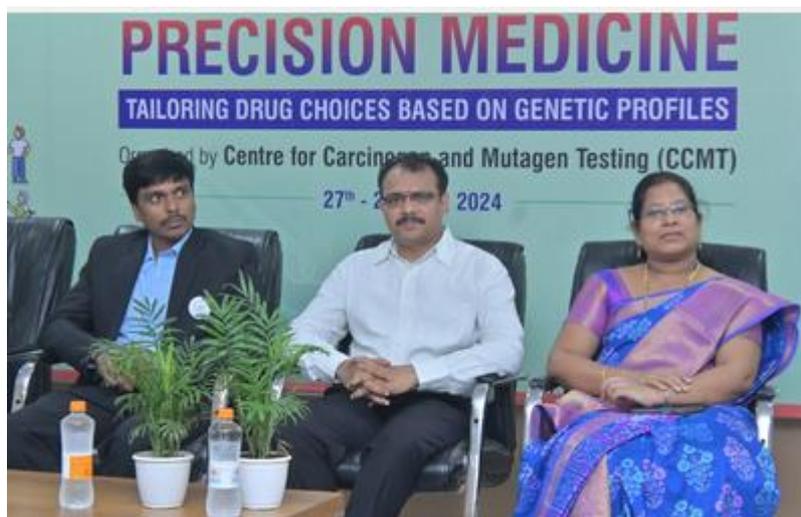
Reflections on Mahatma Gandhi and Prof. Murty on 28th May 2024

The Department of Social Sciences and Humanities, in collaboration with the office of the Dean of Student Affairs and the NTR Library, VFSTR, organized a thought-provoking guest lecture series on the theme “Mahatma Gandhi’s Life, Thoughts and Legacy/Selected Readings of Padma Vibhushan Prof. Kotta Satchidananda Murthy.” Held at Sangamam Hall, VFSTR, this event attracted distinguished faculty members from across Vignan Group institutions, each sharing insights and interpretations on the profound impact of Gandhi’s philosophy and legacy. The event showcased a rich array of talks, each examining aspects of Gandhi’s principles, social reforms, and enduring influence, as well as deliberating on the writings of the erudite scholar and philosopher Prof. Kotta Satchidananda Murthy. Faculty members delivered specialized lectures, sparking engaging discussions among attendees.



A hands-on Training organized in VFSTR ON 27th June 2024

A hands-on Training on Precision Medicine Tailoring Drug Choices Based on Genetic Profiles has been organized during 27 & 28 September, 2024 by Department of Pharmaceutical Sciences, VFSTR and Vignan Pharmacy College, Vadlamudi. The resource person is Dr. D. Benet Bosco Dhas, Co-founder & Chief Executive Officer, 30M Genomics Pvt. Ltd.



M.Sc students Fresher's Day ON 27th May 2024

The Chemistry Department at Vignan's University warmly welcomed its newest M.Sc students with a vibrant celebration of sound and dance on 27th May 2024.



International Conference inaugurated at Vignan ON 26th May 2024

Dr Santo Banerji of Politecnico di Torino in Italy said that nonlinear analysis will accelerate innovations and research, as well as create accuracy and pave the way for new discoveries. The Department of Mathematics and Statistics, Department of Applied Science and Humanities, Department of Applied Science and Humanities, Vadlamudi Vignan's University, Chebrolu mandal, jointly organized a three-day international conference on "International Conference on Non-Linear Analysis and Scientific Computing (ICNASC-2024)" under the joint auspices of the Department of Mathematics and Statistics, Serb, inaugurated the three-day international conference on "International Conference on Non-Linear Analysis and Scientific Computing (ICNASC-2024)" in a hybrid mode on Thursday. Later, a special issue of "ICNASC-2024" was released. Dr Santo Banerji of Politecnico di Torino, Italy, who was the chief guest at the event, said that non-linear analysis can be used for solving technology and engineering problems. It understands the problems that are not possible with linear methods and helps in solving them.

For example, nonlinear analysis plays a key role in predicting climate change or earthquakes. Non-linear systems are close to real-world problems. Our environment, biological systems, economies, etc., are all working in non-linear ways to make it easier to solve problems. Apart from this, students should also develop an understanding of subjects like Artificial Intelligence, Cryptography, IoT and Data Science. Nit Durgapur Professor Samarjit Kar, who was also the chief guest at the event, said the use of scientific computing can speed up rigorous engineering and scientific research with large calculations as well as complex simulations. It is widely used from astrophysics to material science. IIT Dhanbad professor Srinivasarao Pentyla said that using scientific computing software, a lot of calculations and data analysis can be done in a short span of time. This will reduce costs for research and industries and increase the pace of research. Tirupati Rao Padi, a professor at Pondicherry University, said all students should understand the concept of STEM (Science, Technology, Engineering and Mathematics). Right now, the whole world is focused on mathematics. Modern technologies like data science, artificial intelligence and machine learning are also based on scientific computing. These will contribute to modern problems and large data analytics.

Dr G Srinivasa Rao, faculty at the University of Dodoma in Tanzania, said nonlinear analysis and scientific computing could lead to new innovations. This will not only make research more sophisticated but will also show new ways to solve future problems. Shiv Dutt Kumar, a professor at MNNIT in Allahabad, said there are many problems in mathematics that are still unresolved. If students are able to solve any one of the problems in them, their life will settle down. Isi Kolkata professor Arup Kumar Das said that a wide range of applications should be made in physics, biology and chemistry. Nonlinear analysis and scientific computing can be used in many fields such as fluid dynamics, quantum physics, biological systems, etc. Dr Asit Saha, faculty member of Sikkim Manipal University, said that students who have mastered mathematics and statistics should opt for data science as a subject of research in the future. At present, all multinational companies are using data science extensively. So there will be a good demand for students who have mastered it. More than 500 faculty and research scholars from various countries and states participated in this international conference and published their research papers.

Vice-Chairman of Vignan's Educational Institutions Lavu Srikrishna Devarayalu, University Vice-Chancellor Prof. P. Nagabhushan, Registrar Dr. M.S. Raghunathan, Deans, Heads, Faculty and students of the respective departments were present on the occasion.



Vignan's University MoU with SEC Industries ON 23rd March 2024

University Vice Chancellor Colonel, Prof. P. Nagabhushan said on Monday that a memorandum of understanding was signed between Vadlamudi Science University of Chebrolu Mandal and SEC Industries Private Limited in Hyderabad. In the program organized on this occasion, University Vice Chancellor Col. Prof. P. Nagabhushan exchanged documents related to the MoU with Vidyasagar Donthineni, Managing Director of SEC Industries Private Limited. In a program organized on this occasion, the Vice Chancellor of the University said that this MoU will facilitate joint research and development projects. We will work together to solve the challenges currently facing the industries and develop innovative solutions for them.

We conduct joint training programmes, workshops, seminars and Industry–Academia interactions to enhance skill development among students, faculty and researchers. Apart from these, students will be given internship opportunities, practical industry experience and professional growth will be enhanced. On this occasion, Vidyasagar Donthineni, Managing Director of SEC Industries Private Limited, said that he is very happy to enter into an MoU with Vignan's University. The aim of this agreement is to encourage the students towards the latest technologies and give them promotion in the respective fields. Vice Chancellor Col. Prof. P. Nagabhushan, Registrar Dr. MS Raghunathan,

Managing Director of SEC Industries Pvt. Ltd. Vidyasagar Donthineni, Deans, heads, staff and students of the respective departments of the University participated in the program.



NRKR Spinning Mills on 21st March 2024

Faculty members and students, visited (21.03.2024) NRKR Spinning Mills in Chebrolu. The visit provided students with valuable insights into fiber testing processes, including High Volume Instrument (HVI) testing and single yarn strength measurement, and also learned about identifying Classmate faults. In addition to testing, students gained practical exposure to the working of machinery, starting from mixing, blow room, carding, drawframe, comber, simplex, and ring spinning to auto coner (winding) and packing operations. The visit was a comprehensive learning experience, offering a deep understanding of spinning mill operations.



Professors Secure Spot among World top 2% scientists on 20th September 2024

Dr. A. Ranga Rao, Associate Professor, Dr. K. Abraham Peele, Associate Professor, and Dr. K. Chandrasekhar, Assistant Professor, in the Department of Biotechnology at VFSTR, have been distinguished as top 2% of scientists by Elsevier and Stanford University in 2023. This recognition highlights their significant contributions to the biotechnology field and reflects their dedication

to advancing research and innovation. Additionally, Dr. A. Ranga Rao and Dr. K. Chandrasekhar have also been included in the 2024 list for their exceptional publications in highly respected international journals. This achievement not only signifies the high quality of their research but also underscores their influence within the scientific community, showcasing their ability to generate impactful work that enriches the global body of knowledge in biotechnology. Their accomplishments serve as an inspiration to both students and peers, exemplifying the importance of commitment and excellence in scientific research.



In the Shadow of Mahatma on 20th April 2024

In a moving tribute to the Father of the Nation, P. M. V. Rao, Registrar-in-Charge of VFSTR, unveiled the cover of "In the Shadow of Mahatma," an anthology created by students of the Civil Services Minor Program. This unveiling took place on the eve of the Gandhi Jayanti celebration on the campus, a significant occasion dedicated to honoring Mahatma Gandhi's life, thoughts, and enduring legacy. The anthology serves as a collective reflection of the students' engagement with Gandhi's principles, exploring themes such as non-violence, social justice, and communal harmony. It aims to encapsulate the profound impact Gandhi has had on Indian society and to inspire readers to embody his teachings in their own lives. In attendance at the unveiling were several distinguished faculty members, including Dr. N. S. Sampath Kumar, Joint Dean (Academics, Assessment & Awards); Dr. D. Adam Stephen, Head of the Department of Social Sciences and Humanities; Prof. Mohana Charyulu G., Head of the Department of English and Other Indian and Foreign Languages; and Dr. Mohammed Shameem, a faculty member of the Civil Services Academy. Their participation highlighted the importance of academic collaboration in fostering an environment of critical thought and civic responsibility among students.



Ecliptic Curve Cryptography on 19th April 2024

A guest lecture on "Ecliptic Curve Cryptography: Status, Challenges, and Applications" was held under the aegis of the Department of CSE on September 19th, 2024. The session aimed at IV Year B.Tech. and I M.Tech. students was delivered by Dr. Anil Pinapati, Assistant Professor from NIT Calicut.



Future of AI/ML Foundations, Trends and Research Challenges on 14th April 2024

These days, the most talked about topic in technology is Artificial Intelligence and Machine Learning. Since the domains claim a major shift in the paradigm, the concerns raised about the trends and research challenges should be answered. On 14th September, 2024, the School of Computing and Informatics broadcasted a webinar discussing the impact of AI/ML in the days to come. The session was led by Dr. Sanjay Kumar Sonbhadra, Assistant Professor at ITER, SOA, Bhubaneswar.



Free Legal Aid Programme at Vejendla village on 14th May 2024

Vignan Institute of Law organised Free Legal Programme at Vejendla village near Tenali on 14th September 2024. Law students accompanied with faculties of VIL attended the programme. The camp was organised in association with the District Legal Services Authority, Advocate Sri Ram & Para Legal Volunteer Taj Mahumud Beg. The camp was also attended by the villagers including ladies and children. Mr. Abhinav Deep Dora , Assistant Professor of Law, Vignan Institute of Law while addressing the gathering informed that organising these programmes will create legal awareness in the public. Students will get practical knowledge with respect to legal issues pertaining in the society. Students of law created awareness among the villagers on Land disputes and prevention measures as well as on the rights of women, elderly parents and children. Villagers discussed about various family issues, property issues etc with the experts from VIL.

Students of VIL also addressed the people and discussed about the need of legal awareness to the children at school-level. They urged on the need to include a compulsory course on legal education describing about their rights and duties, moral values, norms & ethics in families and societies; that should be taught to all the students pursuing secondary school education. Students also shared several incidents when they had suffered many times due to lack of legal education & support from peer groups, which has become the need of the hour in present times to save our children and other vulnerable groups. They also enumerated various steps to be taken during cyber-crime reporting and tips to prevent such crimes.

Thereafter, several residents of village Vejendla came forward and met with the team of legal experts from VIL as well as District Legal Services Authority and discussed about their legal issues. There primary issues were pertaining to domestic violence, land disputes and property matters etc. Lastly, VIL is committed to conduct such legal aid camp more frequently in the vicinity of Dist. Guntur in the near future with a motto to the empower the society with an aim of providing social justice to all.



Guntur District Court on 14th June 2024

The students of the first year of the Vignan Institute of Law visited the Guntur District Court today (i.e., 14.09.2024) accompanied by the faculties. The students witnessed the Lok Adalat proceedings and also interacted with the judges. The students interacted with the parties attending the Lok Adalat proceedings to understand the nature of their problem. After attending the Lok Adalat Proceedings, the students also attended the court proceedings related to crime issues to get first-hand experience of legal proceedings. The judges oriented the students regarding the different types of cases coming to the court. It was an insightful experience for the first-year students.



Research colloquium on 14th July 2024

As per the Office of the Dean R&D, the Department of CSE organised a Research Colloquium for the internal scholars on 14th September, 2024. The colloquium aims to strengthen the research culture in the department and stimulate the spirit of research in the scholars.



Cloud Certification and Real-World Case Studies on 31st July 2024

The Department of Advanced Computer Science and Engineering (ACSE) organized an enlightening guest lecture on "Cloud Certification: Practical Insights from Real-World Case Studies" on August 31, 2024. The session was delivered by Mr. Bala Prasad Peddigari, a seasoned expert from Tata Consultancy Services, Hyderabad. His in-depth discussion on multcloud environments and cloud certifications provided students with valuable insights into the complexities and practical applications of cloud technologies in industry. The lecture was highly informative and enriched the students' learning experience by connecting theoretical knowledge with practical, industry-driven examples. The ACSE department extends its heartfelt thanks to Mr. Peddigari for his exceptional contribution.



Legal Aid Clinic on 20th July 2024

The event started with the Inaugural of the "Legal Aid Clinic" in Vignan Institute of law by the Smt T Leelavathi (Secretary District Legal Service Authority & Senior Civil Judge) and allocated the DLSA panel advocate and designated Taj Muhamod Beg as Para Legal Volunteer. This will enable the common people, faculty and others to avail free legal aid on Saturdays morning in Vigan Instiute of Law's Legal Aid. Followed by this a Legal Awareness camp on

“Anti Ragging & Bulling” was organised in sangamam seminar Hall. Hon’ble Guest Secretary DLSA Ma’am addressed the audience and asked to report any ragging issues and gave some insights on the anti ragging measures to be taken and praised the Vignan University management for ZERO TOLERANCE to Ragging in the campus and hailed it as a ragging free campus.

She also advised the students not to tolerate any drug abuse and to be cautious and not to addict to drugs. The event was attended by Dean school of law and management Dr K Kalpana and Director Vignan Institute of law Dr C Kamaraju and other faculties and students from various departments. The Ex Public Prosecutor, High court advocate Katta Kalidasu garu also graced the event and addressed the students.



Nonlinear Stability of Flows through Porous Media on 17th June 2024

Vignan's Foundation for Science, Technology & Research (VFSTR) organized a guest lecture on "Nonlinear Stability of Flows through Porous Media" on 17th August 2024. The lecture, hosted by the Department of Mathematics and Statistics, School of Applied Sciences and Humanities, featured Dr. Anantha Lakshmi Narayana P., a distinguished professor from IIT Hyderabad.

Dr. Narayana's insightful talk delved into the complex mathematical principles underlying the stability of fluid flows through porous media, with a focus on nonlinear analysis. His presentation highlighted cutting-edge research applications in fields such as geophysics, petroleum engineering, and environmental science. The event was convened by M. V. Subba Rao, Associate Professor, VFSTR and attended by faculty, students and researchers. The lecture provided an enriching experience, fostering academic discourse and sparking interest in advanced mathematical modelling. The session concluded with an engaging Q&A, offering deeper insights into the subject.



Cyber Security Best Practices on 7th August 2024

Cyber Security Best Practices:Protecting Data in Digital Age : The Department of Advanced Computer Science and Engineering at Vignan University, led by Dr. Deevi Radha Rani, hosted a one-day webinar on "Cybersecurity Best Practices: Protecting Your Data in a Digital Age." Organized under the Cyber Jagrookta Diwas initiative by the Government of India's Ministry of Electronics & Information Technology, the event aimed to raise awareness about crucial cybersecurity practices. Dr. Radha Rani's insightful address emphasized the importance of robust cybersecurity measures, leaving participants with valuable knowledge on safeguarding their digital identities. Her efforts in organizing this impactful event are highly appreciated.



Handloom day on 07th July 2024

On occasion of 10th 'National Handloom Day the Department of Textile Technology, celebrated and conducted an event, showcased their product of 'Handloom made banana cotton mixed

fabrics, Kalamkari art designs, and Tie and dye fabrics. Out of all display, 2 prizes were distributed to the student to encourage their talent.



Orientation programme-2024 on 07th July 2024

Orientation Ceremony and Welcomes Diploma Students at Vignan University, Vadlamudi: Directorate of Polytechnic Education hosted orientation ceremony for the diploma students for the admitted batch 2024-2027 on 07-Aug-2024 marking the beginning of their academic journey. The event aimed to welcome fresher's and provide them with essential guidance for a successful college experience.



Algebraic Coding Theory on 06th June 2024

On August 6, 2024, the Department of Mathematics and Statistics, School of Applied Sciences and Humanities at Vignan's Foundation for Science, Technology & Research hosted an enlightening guest lecture on "Algebraic Coding Theory" delivered by Prof. G. Shobhalatha from S. K. University, Anantapur. The event saw enthusiastic participation from the entire academic

community, including faculty members, Ph.D. scholars, and several students from various departments. The event began with a welcome address by Dr. N. Seshagiri Rao, Head of the Department. Dr. G. Shobhalatha, Professor from S.K. University, Anantapur, was the guest speaker. She provided an in-depth exploration of algebraic coding techniques, discussing their theoretical underpinnings and practical applications in modern communication systems. The session was highly interactive, with Prof. Shobhalatha engaging with attendees through thought-provoking discussions and Q&A sessions, fostering a deeper understanding of the subject matter. The event concluded with a vote of thanks from Dr. G. Srinivasa Rao, Associate Professor of Mathematics.



Vignan – SHAR group director guest lecture on 26th July 2024

P. Gopikrishna, Director, Management Systems Group, SHAR (Satish Dhawan Space Center, Sriharikota) said that there will be a bright future for the students of mechanical and civil engineering fields in the field of automation. P. Gopikrishna, Group Director of SHAR Management Systems, who was the chief guest at Vadlamudi Science University, Chebrolu Mandal, gave a special guest lecture program to the faculty and students of Mechanical and Civil Engineering. Speaking on this occasion, he imparted awareness on high technical skills in mechatronics, robotics and space craft design.

Job opportunities in the fields of core engineering and space technology were shared with the students. He said that the rest of the world is currently lagging behind in the manufacturing sector and this is the right time for our country to be the leader in the manufacturing sector. He said that robotics, product design and development and medical instrumentation will become important in the coming days. He said that in the future, robots will be used in all fields of automobiles, agriculture, hospitals, software and hardware. Vehicles will also be driven by robots. He called upon the students to undertake research to meet the needs of the world.

He said that the students should form groups of four and beyond and undertake new innovations. Vignan's University Vice Chancellor Professor P. Nagabhushan, deans, heads, staff and students of the respective departments participated in the program.



Invited Lectures by ACSE Faculty on 22nd July 2024

NITTTR Chandigarh organized an ICT-based Short Term Course (STC) titled "OpenCV for Image and Video Processing Applications" (Oplan: ICT-27) during July 22-26, 2024. Dr. Jyostna Devi Bodapati, Associate Professor from the Department of Advanced Computer Science and Engineering, VFSTR, has been invited as a resource person for this STC. With her expertise in this domain, she demonstrated the use of OpenCV for analyzing and interpreting video data effectively, making her session both insightful and valuable for the participants. Organizers of this program extend their appreciations to Dr. Jyostna Devi Bodapati for her invaluable contributions to the success of this STC.



Generative AI on 19th July 2024

The Department of CSE hosted a guest lecture on "Generative AI: Status, Challenges, and Future Directions" on July 19th, 2024. The event featured experts from Google and L4G, who shared insights on AI's role in industry, marketing, and workforce development.



Vignan inaugurates Robot Lab on 12th July 2024

Praveen Malla, CEO of Robocoupler Private Limited said that there will be revolutionary changes in the field of robotics in the future. The Department of Mechanical Engineering (Robotics and Automation) of the School of Core Engineering, Vadlamudi Science University, Chebrolu Mandal inaugurated the "Robocoupler's Semi-Humanoid Robot Manufacturing Hub" on Thursday. Praveen Malla, CEO, Robocoupler Private Limited, who was the chief guest of the event, spoke that it is commendable that Vignans University has come forward to set up a manufacturing hub with Advanced Robotics Laboratory. He said that this robot manufacturing hub will provide an excellent opportunity for students as well as research faculty to not only design and develop robots but also take them to market for commercialization.

Keeping in mind the needs of the industry, innovation will be encouraged and the students will get practical multidisciplinary knowledge experience. Vice Chancellor Prof. P. Nagabhushan, Registrar Dr. MS Raghunathan, Deans, heads, staff and students of the respective departments of the university participated in the program.

Dr. Poonam Malakondaiah, IAS 2nd July 2024

VFSTR's Civil Services Academy organized a heartfelt felicitation ceremony in honor of Ms. Poonam Malakondaiah, IAS, on the occasion of her retirement from distinguished service. The event took place at the Chairman's Boardroom, located on the 5th floor of the university. Ms. Malakondaiah, a highly respected and accomplished civil servant, has had a remarkable career spanning several decades, during which she has made significant contributions to public administration and governance. Her leadership and dedication have left an indelible mark on the civil services, inspiring many aspiring officers. The event was attended by senior faculty members, staff, and students of the university. The ceremony began with a warm welcome, followed by an address by the university's leadership, who lauded Ms. Malakondaiah's exemplary service and commitment to the nation. They emphasized her role as a mentor and role model for future generations of civil servants. Ms. Malakondaiah expressed her gratitude for the recognition and shared her experiences and insights from her years in service. She encouraged the students to pursue their dreams with determination and integrity, highlighting the importance of public service in nation-building.



Vignan inaugurated classes for first years on 1st July 2024

Dr. Lavu Rattaiah, Chairman of Vignans Educational Institutions stated that education and development of students should be a happy process. Vadlamudi Vignans University of Chebrolu Mandal has started classes for BTech first year students from Monday. Students and their parents from all over the state attended the program organized on this occasion. He, who attended the meeting as the chief guest, thanked the parents for enrolling students in their university and congratulated the students. He stated that the students who studied under him are climbing high positions in life because of the Panchasutras (1. Faculty Development Program, 2. Planning, Training, Communication System, 3. Counseling System, 4. CRT Classes, 5. Teaching Method) specially organized by Vignan University.

All parents know that if you encourage your children well, they will develop healthy, mentally and all round. It has been revealed that we are offering credits for physical fitness keeping in mind the health of the students. He informed that all the students will develop a good profile only if they participate not only in studies but also in cultural and social activities to increase communication and team spirit in the university. So far, students have been preparing only for writing exams, but from now on, they should prepare to succeed in life. He said that 90 percent of the students who studied in their university got jobs in multinational companies. They said that they will appoint one teacher for every 20 students through the counseling system in their university.

Through this, the students will be constantly monitored to bring out the hidden skills in the students and support them in their development and perfect personality formation. He said that the teachers working in their university are getting 100% results due to updating the available technologies from time to time. Vignans University Vice Chancellor Professor P. Nagabhushan, Registrar Dr. Raghunathan, Deans, Heads and parents, Faculty and students of respective departments were present in the program.



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విజ్ఞానీ విద్యాలయం
ముఖ్యార్యక ఆధిపత్యము
2024



The University Extension Activity Council (UEAC) of Vignan Foundation for Science, Technology & Research (VFSTR) demonstrates a strong and multifaceted collaboration with NGOs, government bodies, and healthcare institutions to address multiple Sustainable Development Goals (SDGs). While the document does not explicitly name traditional NGOs in every case, it describes partnerships with organized external bodies that function in a similar capacity—such as hospitals, blood banks, health centres, and government schemes—all of which align with the NGO-like role in community development.

Here's a correlation between the university's activities and the SDGs they support:

SDG 3: Good Health and Well-being

- Eye Check-up Camp (Selapadu) – Collaboration with Dr. Agarwal's Eye Hospital.
- Blood Donation Camp – Partnership with GGH Guntur, Needed Blood Bank, and Sree Welfare Blood Bank.
- Health Camps (Vadlamudi, Vejanla) – Conducted with Amaravati Hospital, Needs Blood Bank, and government health centers.
- Awareness on Seasonal Diseases, Balanced Diet, Monsoon Diseases, Mental Health – Organized with local health workers, ASHA teams, and school authorities.

SDG 4: Quality Education

- Health and Hygiene Awareness (Sekuru) – Educational outreach on nutrition, diabetes, and hygiene.
- Awareness on Mental Health (Angalakuduru, Selapadu) – Sessions in schools to promote emotional and psychological well-being.

SDG 2: Zero Hunger

- Feed the Hunger (Naidupet) – Distribution of 250 food packets in a slum area near a dump yard.

SDG 1: No Poverty

- Groceries, Blankets, and Clothing Distribution (Brahmana Koduru, Tenali) – Support for orphanages, homeless shelters, and ashrams.

SDG 17: Partnerships for the Goals

- The university consistently collaborates with external agencies such as:
 - Dr. Agarwal's Eye Hospital
 - GGH Guntur & Sree Welfare Blood Bank
 - Amaravati Hospital
 - Local Health Centers & ASHA Workers
 - Government Schools & Panchayats
 - Anganwadi Centers



- Orphanages and Homeless Shelters

These partnerships enhance the reach, resources, and impact of the university’s community service initiatives.

EYE Check-up Camp

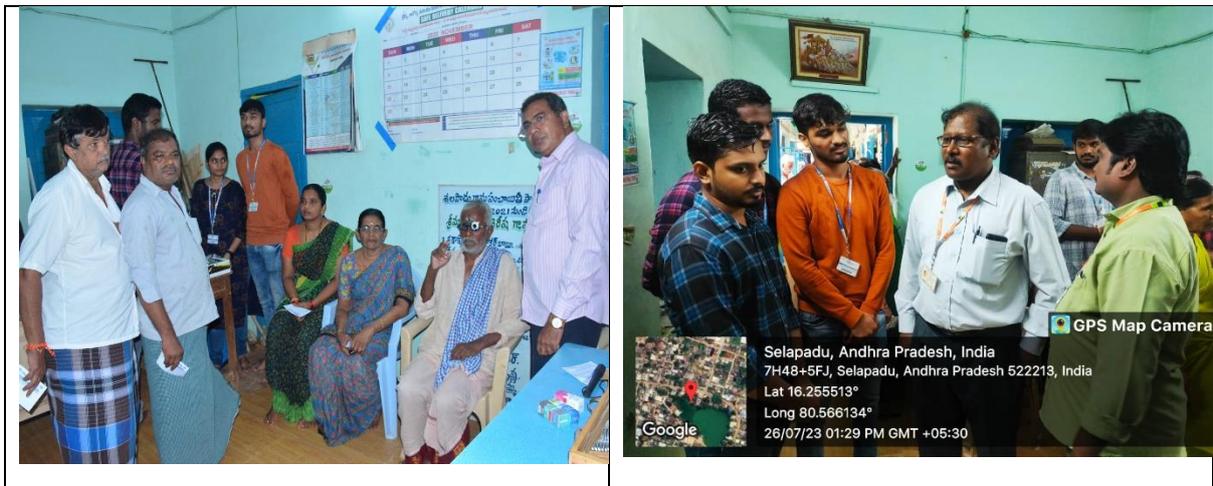
Date:26.07.2023

Venue: Selapadu

On July 26, 2023, the UEAC team celebrated the birthday of our Chairman, Dr. L. Rathaiah sir, by holding an eye check-up camp in our adopted hamlet, Selapadu. A group of eye specialists from Dr. Agarwal’s Eye Hospital in Guntur paid the locals a visit to perform eye - examinations.

The villagers benefited from the camp since it gave them a chance to learn more about many facets of eye care. To properly assess the people, the doctors brought advanced eye examination equipment. They also discussed raising awareness and expanding access to eye healthcare services with the villagers. The purpose of this program was to raise awareness among the villages about eye conditions, their early identification, and how to identify refractive errors and other eye conditions. The folks were inspired by Mr. M. Venugopala Rao and Ms. Mannem Sireesh, the local sarpanch. Both Dr. M.S.S. Rukmini, Dean of Student Affairs, and Dr. Vijayababu Palukuri, UEAC Program Officer, visited the eye camp and gave the student volunteers encouragement. The event was organised by Mr. D. Suresh Babu, UEAC Coordinator. A total of 55 volunteers from various departments had participated in the event.

The Villagers also asked the queries they had in their mind which were solved by eye specialists. Attendees with eye problems requiring continued medical attention were given referral slips. A total of 110 spectacles were given to villagers. The camp proved to be incredibly helpful and for about 250 villagers.



EYE Check-up camp at Selapadu village on 26.07.2023

List of volunteers:

EYE CHECK-UP CAMP ON 26.07.2023			
S.NO	REG.NO	NAME OF THE EVENT	BRANCH
1	231FA05276	ANNAM BHAVISHYA PRIYA	ECE

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2	221FA01084	RAVIPATI SAI VYSHNAVI	BIOTECH
3	231FA04D87	ANGALAKUDURU NAVYA MANI SRI	CSE
4	231FA18392	SOMAVARAPU NAGARJUNA	AIANDML
5	211FW01080	MUCHU JAYANTHI	BSC HONS
6	231FA05203	KESABOYINA CHANDRA SURESH PAVAN KUMAR	ECE
7	221FA14002	MUTHOJU SRIRAM	BI
8	231FC01060	OGGU SOWMYA VENKATA SOWJANYA LAKSHMI	MBA
9	231FD01028	KONDURI SRINIVASARAO	MCA
10	221FA04610	ALLA DEEPTHI	CSE
11	221FA18110	ANDALURI HEMA VENKATA NAGESWARI	AIANDML
12	211FA18021	MUDDA KAPIL RAJ	AIANDML
13	201FA05033	SAKIRI MOHAN CHANDRA BALA NAIDU	ECE
14	221FA18118	MUKESH LAKSHMI SAI MEDIKONDA	AIANDML
15	231FA05137	AKKAPEDDI SRI NIVEDITHA	ECE
16	211FA05138	DADI VARDHAN	ECE
17	231FA18252	VARIKUTI DHARANEESWAR	AIANDML
18	221FA07106	VULLAMGUNTA LOKESH KUMAR	IT
19	211FA19057	YEPURI MANIKANTA	CSECS
20	231FD01066	THATAVARTHI KAVYA SRI	MCA
21	221FA18177	MADDI KEERTHI PRANEETHA	AIANDML
22	211FA04669	VIKASH RANJAN	CSE
23	231LA06009	SHAIK MOHAMMAD FAROOQ	EEE
24	231FA07077	BANDLA VARSHINI	IT
25	221FA19049	GANTA SUNDEEP	CSECS
26	231FA08012	VEMULAMADA NAGA SRINIVAS	MECH
27	211FA01006	MINUMANURI KOTLO JYOTSHNA	BIOTECH
28	231FC01116	SHAIK NAGURBASHA	MBA
29	211LA12009	V RACHANA	AG
30	201FA14030	GADI ADITYA VARMA	BI
31	231FW01044	NAGARAJU HEMANTH VARAMA	BSC HONS
32	211FK01039	KANDURI Y V SAI ESWAR KUMAR	BBA
33	211FA14068	ATMAKURI VENKATA MONIKA SARVANI	BI
34	231FA04435	UPPALAPATI LAKSHMI DURGA	CSE
35	221FK01062	PISAPATI SATYA KUMAR	BBA
36	231FA04482	TALLURI AKASH	CSE
37	231FM01001	MANAPATI KOWSHIK	BSC
38	211FA18128	PARAMATA SWAROOP NANDA	AIANDML
39	221FA04168	DAMARLA GAGANA DEEPIKA	CSE
40	231FJ01061	INUPAGOLLA GAYATRI	BCA
41	231FA19053	YEDULA SUBRAHMANYESWARA	CSECS
42	231FA04289	ARIKATLA YASWANTH REDDY	CSE
43	221FA05003	UPPALA NEHA TULASI	ECE
44	201FA04374	ICHAPURAM S HEMANTH	CSE

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45	221FA05150	RAMISETTY GANESH KARTHIK	ECE
46	231FA04E55	KOLLI SAI CHANDANA	CSE
47	221FJ01055	PASUPULETI IMANIUEL DEVA PAUL	BCA
48	231FA04741	ASODI DEVAKI REDDY	CSE
49	231FJ01071	PRIYANSHU RAJ	BCA
50	231FA04966	JONNALAGADDA DEVENDRA	CSE
51	231FA04950	DAGGUPATI GOWTHAM SAI	CSE
52	221FA04027	KANNURI AKSHAY	CSE
53	231FC01014	SHAIK BIBI AYESHA	MBA
54	221FA04600	KILARU SRIMANI CHAITANYA	CSE
55	211FA04605	POLIMERA VEMAREDDY	CSE



Blood Donation Camp

Date:28.07.2023

Venue: VFSTR

UEAC (University Extension Activity Council) Unit of VFSTR organized a Blood Donation Camp on Chairman Sir's birthday on 28th July 2023 in the University premises. It was held at four places (NTR library video conference hall, 1st floor, TBI Seminar 2nd floor Nagarjuna block, AGF-02 U block ground floor and VFF-02 Lara campus). A team of 4 doctors and 30 lab technicians from GGH Guntur, needed a blood bank, Guntur and Sree Welfare Blood Bank Guntur came for the collection of blood. The event started at 10.00 AM.

The Dean of Student Affairs Dr.M.S.S Rukmini and the UEAC Programme Officer Dr. Vijaya Babu Palukuri inaugurated the camp. The UEAC Programme Officer encouraged the students and staff by donating his blood and explained the benefits of blood donation to students. He also said that every donor can save the lives of people in an emergency.

75 students and 10 faculty members from the different departments donated blood to this camp. The three blood banks have given appreciation certificates to all the donors for their voluntary generous responsibility. The camp was completed around 3 PM.



Blood Donation Camp on 28.07.2023

List of volunteers:

Blood Donation Camp on 28.07.2023			
S.No	Reg.No	Name of the Student	Branch
1	231FJ01033	ARUDALA PUJITA	BCA
2	211FA18102	MALISSETTI RAMNARAYANA	AIANDML
3	231FA05105	KUNCHALA VENKATA KOTESWARA REDDY	ECE
4	211FK01152	YENUGANTI LEELA MAHESWARI	BBA
5	211FA04499	SHAIK MOHAMMED SAIF	CSE
6	231FA07023	KARNATI PAVITHRA	IT
7	211FA04036	BANDLA M SRI LAKSHMI DURGA NIKHITHA	CSE
8	221FA02002	SHAIK ASSAD	CHEM
9	231FA04029	POPURI BINDU MADHAVI	CSE
10	231FA23038	CHANDALURI VASANTH REDDY	DS

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11	211FA05165	SHAIK KHALEED BASHA	ECE
12	201FA20004	ANISETTI VENKATA SAI YASWANTH	CSBS
13	221FA04350	SHAIK FATHIMUNNISA	CSE
14	231FA18373	MUMMINA BHARGAV	AIANDML
15	231FA04069	SHAIK ARSHAD	CSE
16	231FA04320	GRANDHI VENKATA SAI PRATHAP	CSE
17	221FA04095	GUNTURU MANOJ KUMAR	CSE
18	231FA04C53	BAPANAPALLI SOWJANYA	CSE
19	211FJ01051	SAYYAD SHAFI	BCA
20	231FA15033	UDATHA SIVA MANI	FT
21	221FA04240	CHERUKURI PRAVALYA	CSE
22	211FA04351	IGUTURI MOUNIKA	CSE
23	221FW01020	NUNNA SRAVANTHI	BSC HONS
24	231FA04G71	BADDELA RAJA SEKHAR	CSE
25	211FW01096	KORIVI KARTHEEK	BSC HONS
26	231FA16007	PENUMALA VARSHINI	BM
27	211FA05168	MADAMANCHI LAKSHMI SINDHURA	ECE
28	231FA04A55	AKULA HIMAVARSHITHA	CSE
29	221LA08018	LAKSHMISSETTY RAGHUVVEER KANTH	MECH
30	221FJ01077	VELANATI SAI APURUPA	BCA
31	231FA05244	DUSARI MADHU VENKATA SAI RAM	ECE
32	231FA04E09	HARI KRISHNA TUPAKULA	CSE
33	221FA07080	SAKALA LAKSHMI BHANU SAI SATHISH	IT
34	221FA04660	PALEPU M N V S LS PRABHAVATHI	CSE
35	231FC01108	MEKALA INDIRA PRIYADARSINI	MBA
36	231FA04A62	MUSULLA SATYA SAI RAKESH	CSE
37	231FA04935	MANDADI MURALI KRISHNA REDDY	CSE
38	201FA01121	KASVA DIVYA SREE	BIOTECH
39	221FA04210	VANGA JAHNAVI	CSE
40	231FA04362	RAMISETTI TAGORE	CSE
41	211FA01032	PALLABOTHULA NAGA LAKSHMI	BIOTECH
42	231FA04374	GOGINA UMA MAHESWARI	CSE
43	221FA06002	WALEED	EEE
44	221FA01035	PAMULAPATI HARIKA	BIOTECH
45	211FA06011	VARAGANI ANJANEYULU	EEE
46	211FA04341	NALLABOTHU TRINADH	CSE
47	211FA20012	YARRA NAGA VENKATA ARAVINDHA SAKETH	CSBS
48	221FA05201	JONNAKUTI VINAY JOSEPH	ECE
49	221FA05229	TANGELLAMUDI MOUNIKA	ECE
50	211FA04062	ADDEPALLI JAYANTH	CSE
51	221FD01046	NARADASU PAVAN KALYAN	MCA
52	211FA04197	MACHAVARAPU SAI SRAVYA SRI	CSE
53	231FA23095	SRUNGARAPU MOHAN VENKATA GOPI SIDHARDHA	DS

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54	201FA04280	JERRIPOTHULA YOGYATHA SREE	CSE
55	221FA07067	KOLLI AARATHI	IT
56	221FA04032	PALADUGU SIVA SATYANARAYANA	CSE
57	231FA04517	KASUKURTHI RISHITHA	CSE
58	231FA03001	JALALELDEEN MOHAMED ADAM MODARDUM	CIVIL
59	231FA05202	KORNE GANESH	ECE
60	221FA04639	YEKKANTI LAKSHMI	CSE
61	201FA14024	BHAVANAM DIVYA SAISRI	BI
62	221FK01065	RAJANALA SOWJANYA	BBA
63	211FK01036	KALIKIRI KISHAN REDDY	BBA
64	221FA01095	VELDURTHI MOKSHA MADHUMINA	BIOTECH
65	221FA07016	THOTA SRAVAN KUMAR	IT
66	221FA04031	NAGULAPATI PHANINDRA RAJAMITHRA	CSE
67	231FA04130	KASIBHOTLA LAKSHMI RAJESWARI SAILAJA	CSE
68	211FA07052	SHAIK NAGULMEERA	IT
69	231FA03015	MABIKA AUSTIN T	CIVIL
70	231FA04B70	GANAPA RAKESH REDDY	CSE
71	201FA15007	SAI GANESH UPPUTURI	FT
72	231FA23024	P VENKATA JAYA MANIKANTA	DS
73	221FA05209	L S B ADITHYA ABBARAJU	ECE
74	211FK01149	PINJARI SAMEERA	BBA
75	231FA18454	KONDAVEETI VISHWANTH SAI PHANI	AIANDML



Groceries, Blankets and Clothing Supplies Distribution

Date:27.07.2023

Venue: Brahmana Koduru and Tenali

As a part of Chairman Sir's birthday, the UEAC unit of VFSTR distributed Groceries, Blankets and Clothing to Child Orphanage home Brahmana Koduru, Gandhi Aashramam Tenali, Night Shelter for Urban Homeless Tenali and Smile orphanage home Tenali on 27.07.2023. Our UEAC volunteers distribute Groceries and blanket distribution in different regions of Guntur including Brahmana Koduru and Tenali.

The satisfaction of meeting people's fundamental needs brings a unique emotion that is indescribable. They spend the cold without a blanket and lack clothing to cover their bodies. Every year during the winter months, thousands of people die because of this. Every time we go to such places, we ask ourselves if it isn't our duty to help these needy and impoverished people to lead lives full of opportunities and a sense of hope

Some folks see multiple individuals and provide them with clothing and blankets. Additionally, we provide clothing, blankets, and groceries to destitute individuals who are living a life devoid of hope, and we work to provide a glimmer of light in their lives. Participating in this activity were 62 UEAC volunteers, Associate Dean Dr. J. Nitchal Kiran, UEAC Coordinator Mr. Suresh Babu, and UEAC activity Officer Dr. Vijayababu Palukuri.



List of volunteers:



Distribution of Groceries, Blankets and Clothing Supplies on 27.07.2023			
S.No	Reg.No	Name of the Student	Branch
1	211FA04674	KHUSHI KUMARI	CSE
2	221FA05123	SRUNGARAPU JAGADEESH	ECE
3	221FA04065	KUCHIPUDI NAGA LAKSHMI HANSIKA	CSE
4	231FA15013	AVADANAM PANENDRA KUMAR	FT
5	211FA16019	REDDYMACHU BHAVANA	BM
6	231FA04F03	SHAIK NAWAZ BASHA	CSE
7	221FA04188	MUDIYALA PUJITHA	CSE
8	211FW01036	TANISHKA NAGANDLA	BSC HONS
9	231FA18274	ATLURI BHANU SRI	AIANDML
10	201FA07083	PRAMOD KUMAR	IT
11	211FA05060	CHEDURUPALLI MAHESH	ECE
12	231FK01124	PEDDINTI NUTANA	BBA
13	221FA01022	MUTHYALAMPALLI PRANEETHA	BIOTECH
14	231FA06009	SYED AHAMED ALISHA	EEE
15	221LA02009	SHANMUGAM JAGADESWARI	CHEM
16	221FK01047	MEKALA AMRUTHA VARSHA	BBA
17	211LA22009	PANCHALA CH V S N SAI LAKSHMI PRASAD	TT
18	221FW01083	PERALA SRI PRIYA	BSC HONS
19	221FA23028	BANDARU MYTHRI	DS
20	211FK01051	MANDIREDDY NIKITHA	BBA
21	221FA04617	KATTI YAMINI	CSE
22	231FA14008	GUDAPATI LIKHITHA	BI
23	231FA04794	GONTLA BINDU VENKATA SAI AMRUTHA	CSE
24	211FA01064	MAAKANI CHAMUNDESWARI	BIOTECH
25	231FA04661	TIYYAGURA PRADEEPTHI	CSE
26	221LA05007	KALAPALA MIHARIKA	ECE
27	211FW01075	MUVVALA NEELIMA	BSC HONS
28	231FA18441	GANDHAM LAKSHMI NARAYANA	AIANDML
29	201FA15035	MEGHANA PULAGAM	FT
30	231FA04F02	ALAPATI KEERTHANA	CSE
31	221FA01140	YEMINENI HEMANADH	BIOTECH
32	221FA04544	JETTI USHA KALYANI	CSE
33	231FA04G38	MD RIZWAN	CSE
34	221FA07009	BOLLA LALITHA SRI	IT
35	231FA18139	RAMANA YAMINI	AIANDML
36	221FJ01015	DANDIGIRI LAKSHMI	BCA
37	231FA04E47	YANAMANDRA VENKAT RAMA KASYAP	CSE
38	221FA18182	BANDI HARSHITHA SRIJA	AIANDML
39	201FA16026	SHAIK SHAMEEM	BM
40	211FA15009	KONDAPALLI RUCHITHA SREE	FT
41	211LA03007	JAMMALAMADAKA DURGA SASANK	CIVIL
42	231FA04277	VANKAYALA JYOTHI NAGA ADHARSHINI	CSE

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43	221FA18026	CHANDALURI NAGA SOWMYA SRI	AIANDML
44	231FA14040	KOTAGIRI THANUJA	BI
45	211FA04302	MUSUNURI SIVA RAMAKRISHNA	CSE
46	221FC01059	KUKKALA HARISH REDDY	MBA
47	231FA07089	PALA SAHITHI	IT
48	231FA04G48	TUSHAR KUMAR	CSE
49	231FA15020	MAHAMMAD GOUSE YASINULLA	FT
50	221FA01014	TENALI VASUNDARA	BIOTECH
51	231FA18438	PONNEBOINA VENKATA NAGA BALAKRISHNA	AIANDML
52	231FW01002	AMAN SHEKHAR	BSC HONS
53	231FA16023	NAGUMOTHU SAILAJA	BM
54	211FA01082	YARLAGADDA BHAVANA	BIOTECH
55	231FK01139	BHUVANAGIRI SAI SRI VIDYA	BBA
56	201FA04451	GOTTAM LAVANYA	CSE
57	231FA04417	MIDDIBOINA PAVAN KUMAR	CSE
58	211FA04103	BHAVANAM SURYA PRAKASH REDDY	CSE
59	211FA07098	KOLLURU MOHITHA	IT
60	231LA12003	VELPURI MOUNIKA	AG
61	231FA04922	KUNTAMUKKALA UMESH CHOWDARY	CSE
62	201FA01059	KAKANI SAI PRAVALLIKA	BIOTECH



Health and Hygiene Awareness

Date:16.09.2023

Venue: Sekuru

The Health and Hygiene awareness program was conducted in Sekuru village on 16-Sep by CSE department of team UEAC. It was organized to educate and promote awareness about critical aspects of health and hygiene within the local community.

The program emphasized the significance of maintaining a healthy weight through balanced nutrition and regular exercise. Participants were educated about the causes, risk factors, and management of hypertension. The core team discussed prevention of diabetes, early detection, and the importance of routine check-ups. Participants learned about the benefits of a nutritious diet and received practical dietary recommendations. The significance of regular handwashing in preventing infections and maintaining good health was emphasized.

A cleanliness drive was conducted to encourage community members to contribute to a cleaner environment. Our UEAC team members including vertical members, leads and the core team went to Sekuru village by 10:30. They started by 10:00 AM in the college, went to the village and brought awareness in people by educating them about proper diet maintenance and other hygiene factors that leads to a healthy life. Finally, a total of 40 members returned to college by 12:30 PM. This event encourages the community to adapt to some changes to lead to a healthy life.



Health and Hygiene Awareness on 16.09.2023

List of volunteers:

Health And Hygiene Awareness on 16.09.2023			
S. No	Reg. No	Name	Branch
1	201FA04003	BASANI MANOJ REDDY	CSE
2	201FA04012	ISHA JAIN	CSE
3	201FA04022	MUMMALANENI HARSHA VARDHAN	CSE
4	201FA04095	DUDEKULA RESHMA BHANU	CSE
5	201FA04104	M SHARATH CHANDRA REDDY	CSE

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6	201FA04087	VEMULAPALLI SAI ANJANI	CSE
7	201FA04109	MANNE SUJITHA	CSE
8	211FA04246	RAMANA NAGANJANEYA BHARATH REDDY	CSE
9	211FA04239	BOGOLU SOWMYA	CSE
10	211FA04251	ARI NIKHIL SAI	CSE
11	211FA04175	UMA SANTHOSH VUYYURU	CSE
12	211FA04145	RAYAVARAPU NIHARIKA	CSE
13	211FA04152	NERELLA PUJITHA	CSE
14	211FA04160	KANUMURI DEEPIKALAKSHMI	CSE
15	211FA04216	POLINA USHA LAKSHMI	CSE
16	211FA04243	VUYYURU MANIKANTA BABU	CSE
17	211FA04247	KOLLURU CHAKRI KUMAR	CSE
18	211FA04483	DESABOYNA VENKATA SAI KALYAN	CSE
19	211FA04488	PATHAN SANA SULTANA	CSE
20	211FA04496	BYSANI CHAITANYA SAI	CSE
21	211FA04505	GANIPISETTY MADHURI	CSE
22	211FA04518	POLISETTI SRAVANTHI	CSE
23	211FA04393	DASARI NAVYA SREE	CSE
24	211FA04367	CHILAKAPATI MANVITHA	CSE
25	211FA04344	VUYYURU YASWANTHSRI	CSE
26	211FA04319	DHANASIRI KAVYA	CSE
27	221FA04073	BELLAMKONDA CHAITANYA NANDINI	CSE
28	221FA04065	KUCHIPUDI NAGA LAKSHMI HANSIKA	CSE
29	221FA04083	BOGALA DEVI PRASAAD REDDY	CSE
30	221FA04094	ALLA AMMULU	CSE
31	221FA04102	RAVIPATI SOWMYA	CSE
32	221FA04108	KAMEPALLY NIKHIL SAI	CSE
33	221FA04126	BATCHU YASASWINI SRI PAVANI	CSE
34	221FA04120	ADARSH KUMAR JHA	CSE
35	221FA04113	SIKHINAM MERCY	CSE
36	221FA04134	VALLEM KEERTHANA	CSE
37	221FA04189	SEELAM LAL SRIVAMSI	CSE
38	221FA04201	SURA JAHNAVI	CSE
39	221FA04211	ALAPATI NIKITHA	CSE
40	221FA04196	ARE VIJAY KRISHNA	CSE



FEED THE HUNGER

Date:22.09.2023

Venue: Naidupet, Guntur

Vignan University's UEAC Team has conducted the Feed the Hunger event in a slum area at Naidupet in Guntur rural. A team of volunteers visited and observed the conditions of the people who were living near the dump yard area and came up with the idea of food distribution. It was conducted on 22-09-2023 on the NSS day celebration by the team University Extension Activities Council.

In a world of abundant wealth and resources, where enough food is produced to feed everyone on the planet, it is unacceptable that hundreds of millions of people suffer from hunger. Feeding the hungry and giving food to the needy is one of the simplest ways of helping them to sleep without an empty stomach.

Our UEAC team of 67 volunteers, including core, leads, and vertical members went to a slum area and distributed around 250 food packets to the people. Finally, we returned to college by 8:00 PM. UEAC Program Officer Dr. Vijayababu Palukuri motivated the volunteers and UEAC coordinator Mr. D.SureshBabu coordinated the entire camp. Dr. Vijayababu Palukuri and Dr. M.S.S. Rukmini Dean of Student Affairs appreciated every volunteer.



Feed The Hunger On 22.09.2023

List of Volunteers:

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-Estd. u/s 3 of UGC Act 1956

Feed The Hunger On 22.09.2023			
S. No	Reg. No	Name Of The Student	Branch
1	231FA04A48	CHANDU VENKATA SAI NAGARJUNA	CSE
2	231FA04G05	AYUSH KUMAR	CSE
3	231FA04A70	PILLUTLA SRIYA LALITHA	CSE
4	221FK01011	BHIMA SHANMUKHA	BBA
5	221FA04481	MARTHA SIVA SAI GEETHESHW	CSE
6	221FA04351	PONNEGANTI HARSHITH KUMAR	CSE
7	201FA15069	MADARGARI YUNUS	FT
8	211FA05139	S. SOWMYA SRI	ECE
9	201FA04393	ADUSUMALLI THARUN NAIDU	CSE
10	211FA05238	UVLLAM RAMESH BABU	ECE
11	221FA04036	TATINI RAGHU RAM	CSE
12	201FA15050	DOKUPARTHI BHUVANESWARI	FT
13	221FA08004	EZELDIN ESHAG EISA MOHAMED	MECH
14	231LA06008	CHILAKA RAVI KUMAR	EEE
15	201FA04162	MUVVA VIDYA	CSE
16	231FA04753	LAKKA BHAVYA TEERDHA	CSE
17	201FA15002	CHIKKU VENU	FT
18	221FC01054	CHENNAMALLU CHANDRA SEKHAR PAVAN KUMAR	MBA
19	211FW01047	NADIPALLI KARTHIK	BSC HONS
20	231FA18359	ANKISETTY SAI HARSHINI	AIANDML
21	231FA23017	INTURI HARI SAI TEJA	DS
22	211FA04676	SAFUWAN SHIBLEE	CSE
23	231FA14047	CHILAKABATHINI SRAVYA KEERTHANA	BI
24	231FA14012	VAZRALA PUSHPA VALLIKA	BI
25	221FA18153	DHULIPALLA SAI CHAITANYA	AIANDML
26	221FW01087	BELLAMKONDA DHANA LAKSHMI	BSC HONS
27	231FA01096	PODILI MOHANA KALYANI	BIOTECH
28	231FA04A23	SIGILSETTY DEVILEELA	CSE
29	231FA01124	LAKSHMI SOWMYA .SINGAMSETTI	BIOTECH
30	231FA04F11	UPPALA DINESH SAI KUMAR	CSE
31	231FA14069	KARANAM AKSHAYA MOUNIKA	BI
32	211FA05126	TEJA BHARGAVI BOMMU	ECE
33	201FA04320	MYNAM SAHITHI	CSE
34	211FW01045	GRANDHI VENKATA ANU SARAYU	BSC HONS

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35	221FW01088	G YAMA JAYANTHI	BSC HONS
36	201FA15084	MANUKONDA BHAVYA SRI	FT
37	231FA04A88	ATUKURI HARIKA	CSE
38	211FA04003	THOTAKURA SHANMUKHA SUDHA KIRAN	CSE
39	221FA04166	CHANIKYA ANNAPANENI	CSE
40	221FA18104	MEESALA JAHNAVI DURGA	AIANDML
41	231FA05201	ANNAPUREDDY MEENAKSHI DEVI	ECE
42	221FA04457	CHAKRAVARTHI SURYADEVARA	CSE
43	231FA07059	GUDURU KEDAR	IT
44	231FA04E50	DEVALAPALLI THANUJ KRISHNA	CSE
45	221FA04734	AVINASH KUMAR	CSE
46	221FD01053	RAMADAS NANDINI SAI	MCA
47	231FA04128	S JAHNAVI	CSE
48	231FA16045	GOTTIPATI MANASWI	BM
49	221FA07076	KOTAMRAJU KAUSHIK	IT
50	231FA18039	MADALA HEMA SAI	AIANDML
51	211FA07029	SHAIK MOHAMMAD SAMIULLAH	IT
52	221FA14094	KATA KUMUDINI	BI
53	221LA06017	CHINTHABATHINI ANGELMANI	EEE
54	221FA23053	POKALA HARI PRIYA	DS
55	211FM01046	KONAKALA BHARGAV	BSC
56	201FA04154	KALEPALLI SRAVYA BHAGYA LAKSHMI	CSE
57	211FA05278	GAMPALA AJAY KUMAR	ECE
58	211FA05177	BOLLA SAI DURGA SIVA MANIKANTA	ECE
59	231FA15009	PATHAN FURQAN MOHAMMED KHAN	FT
60	211FA04228	GUNTUPALLI BHOOMIKA	CSE
61	231FA23086	CHEKURI LAKSHMI VASANTHI	DS
62	221FA05017	SHAIK AMMAN	ECE
63	231FA04C21	VEDAGIRI NIKUNJA VIHARINI	CSE
64	231FA18084	SHAIK NAFISA SAMREEN	AIANDML
65	231FA14077	NAVYA THALATHOTI	BI
66	221FA07049	THADIVAKA ROHITA MANJU SAI	IT
67	211FA19054	TAVVA VEERA VENKATA NAGA SAI KARTHIK	CSECS

Awareness on Seasonal Diseases

Date: 23.09.2023

Venue: Vejandla Village

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On the 23rd of September 2023, Awareness on Seasonal Diseases was organized by the NSS wing food technology of VFSTR in the nearby Vejudla village. This event aimed to create awareness on Seasonal Diseases and to provide awareness among the students, reducing the health problems caused by seasonal diseases and educating the People on the proper precautions. The target audience for this event was the in the nearby village of Vignan's University. This event began at 10:30 AM with a brief introduction about the NSS program and the significance of the event, with a total number of 30 NSS coordinators and volunteers. The NSS unit has reached a total number of 30 people from the village nearby for this event. In Conclusion, the awareness on seasonal diseases event organized by Team NSS of the FT department of Vignan University was a successful event that created awareness on the harmful effects of seasonal diseases.



Awareness on Seasonal diseases at Vejudla on 23.09.2023

List of volunteers:

Awareness on Seasonal Diseases on 23.09.2023			
S.No	Reg.No	Name	Branch
1	201FA15088	BUDIDHA GOVARDHAN	FT
2	201FA15096	BANDARU KIRAN BABU	FT
3	201FA15107	VEERAMACHANENI MAHITHA	FT
4	211FA15001	ANTO ABRAHAM	FT
5	211FA15005	ANAGANI MEGHANA	FT
6	211FA15014	KUCHIPUDI RAMA LAKSHMI SUNANDHANA	FT
7	211FA15025	CHEETIRALA ABHIJITH	FT
8	211FA15037	MALLELA SAI SUHARIKA	FT
9	211FA15042	MD ROSHIN	FT
10	211FA15029	SUNKARA NAGA RAJU	FT
11	211FA15003	KOMMINI DEVA KEERTHANA	FT
12	211FA15048	TADI BHAVYA VAISHNAVI	FT



13	211FA15047	EADA SAI MANASWINI	FT
14	211FA15047	EADA SAI MANASWINI	FT
15	221FA15005	DUVVADA AVINASH	FT
16	221FA15007	KANISSETTY SAILAJA	FT
17	221FA15011	GRANDHE VEERA VENKATA VYSHNAVI	FT
18	221FA15014	KOMMURI KISHORE	FT
19	221FA15017	GAVALLAPALLI POOJITHA	FT
20	221FA15023	KUCHUN NAGA VENKATA LAKSHMI SHIV APARNA	FT
21	221FA15037	PRAVALLIKA SREE VAJRINI JANGAM	FT
22	221FA15035	GALI LEKHANA	FT
23	221FA15028	GANUPATI POOJITHA	FT
24	221FA15021	TELAGATHOTI GAYITRI	FT
25	221FA15025	MOHAMMED IRFAN	FT
26	221FA15036	GAURAV KUMAR SINGH	FT
27	221FA15034	SHANMUKHI SRI PRIYA NARADASU	FT
28	221FA15024	KARNAM PARNITHA	FT
29	221FA15008	KANKIPATI DHRITI	FT
30	221FA15004	CHENNAYPELEM DEEPIKA	FT

Awareness on Balanced Diet

Date: 23.09.23

Venue: Vejendla Village

On the 23rd of September 2023, Awareness on Balanced Diet was organized by the NSS wing food technology of VFSTR in the nearby veranda village.

This event aimed to create awareness on a Balanced Diet and to provide awareness among the students, reducing the health problems caused by the balanced diet and educating the People on the proper diet. The target audience for this event was the in the nearby village of Vignan's University.

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This event began at 10:30 AM with a brief introduction about the NSS program and the significance of the event, with a total no of 30 NSS coordinators and volunteers. The NSS unit has reached a total of 300 people from the nearby village for this event.

After the introduction, awareness on a balanced diet. The attendees were provided with a brief about this event by explaining the harmful effects of various diseases. This was delivered by the NSS coordinators and the Volunteers. In Conclusion, the awareness on the Balanced Diet event organized by Team NSS of the FT department of Vignan University was a successful event that created awareness on the harmful effects of a balanced diet.



Awareness on Balanced Diet at Vejendla on 23.09.2023

List of Volunteers:

Awareness on Balanced Diet on 23.09.2023			
S.No	Reg.No	Name	Branch
1	201FA15088	BUDIDHA GOVARDHAN	FT
2	201FA15096	BANDARU KIRAN BABU	FT
3	201FA15107	VEERAMACHANENI MAHITHA	FT
4	211FA15001	ANTO ABRAHAM	FT
5	211FA15005	ANAGANI MEGHANA	FT
6	211FA15014	KUCHIPUDI RAMA LAKSHMI SUNANDHANA	FT
7	211FA15025	CHEETIRALA ABHIJITH	FT
8	211FA15037	MALLELA SAI SUHARIKA	FT
9	211FA15042	MD ROSHIN	FT
10	211FA15029	SUNKARA NAGA RAJU	FT
11	211FA15003	KOMMINI DEVA KEERTHANA	FT
12	211FA15048	TADI BHAVYA VAISHNAVI	FT

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13	211FA15047	EADA SAI MANASWINI	FT
14	211FA15047	EADA SAI MANASWINI	FT
15	221FA15005	DUVVADA AVINASH	FT
16	221FA15007	KANISSETTY SAILAJA	FT
17	221FA15011	GRANDHE VEERA VENKATA VYSHNAVI	FT
18	221FA15014	KOMMURI KISHORE	FT
19	221FA15017	GAVALLAPALLI POOJITHA	FT
20	221FA15023	KUCHUN NAGA VENKATA LAKSHMI SHIV APARNA	FT
21	221FA15037	PRAVALLIKA SREE VAJRINI JANGAM	FT
22	221FA15035	GALI LEKHANA	FT
23	221FA15028	GANUPATI POOJITHA	FT
24	221FA15021	TELAGATHOTI GAYITRI	FT
25	221FA15025	MOHAMMED IRFAN	FT
26	221FA15036	GAURAV KUMAR SINGH	FT
27	221FA15034	SHANMUKHI SRI PRIYA NARADASU	FT
28	221FA15024	KARNAM PARNITHA	FT
29	221FA15008	KANKIPATI DHRITI	FT
30	221FA15004	CHENNAYEPALEM DEEPIKA	FT



Health Camp

Date:24.09.2023

Venue: Vadlamudi

On National NSS Day, the University Extension Activity Council (UEAC) of VFSTR organized a Free Health Check-up Camp at one of our adopted Villages, Vadlamudi. In collaboration with Needs Blood Bank, Dr. Shiva Ratnakar General Medicine, from Amaravati Hospital Guntur and two supporting staff, have conducted the checkups to the villagers and distributed the medicine freely. Two ANMs of Vignan University Health Center were also involved in the camp for supporting the check-ups at Vadlamudi village on 24.09.2023 from 9:00 AM to 2:00 PM. The Sarpanch of the village Ms. Morampudi Anitha Rani and UEAC coordinator inaugurated the camp.

65 Student volunteers were divided into seven groups to usher the village people. They also motivated the people to utilize this opportunity. In this camp BP and body temperature, pulse checks to identify the problems of the patient and given the medicine. A total of 153 people has been examined and given free medicine. UEAC Program Officer Dr. Vijayababu Palukuri motivated the volunteers and UEAC coordinator Mr. Suresh Babu coordinates the entire camp. Dr. Vijayababu Palukuri and Dr.M.S.S. Rukmini Dean of Student Affairs appreciated every volunteer.



Free Health Camp on 24.09.2023

List of Volunteers:

Health Camp on 24.09.2023 at Vadlamudi village

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S. No	Reg. No	Name of the Student	Branch
1	221FW01154	THUMATHI ARUN KUMAR	BSC HONS
2	201FA01037	RASINENI KUSUMASREE	BIOTECH
3	231FA16031	VOORA SRIVANI	BM
4	221FA04009	SRIGAKOLAPU SAI BHARATH	CSE
5	221FA04404	DHADI RAVALI	CSE
6	211FA04443	KETHA KAVYA	CSE
7	211FA15029	SUNKARA NAGA RAJU	FT
8	231FA05309	AMAN GUPTA	ECE
9	211FK01017	DALAVAI KEERTHI	BBA
10	231FW01020	GOPISETTY VASAVI	BSC HONS
11	231FA14042	PALLA YUGENDRA AMAR BALAJI	BI
12	231FK01004	GUNJI GANGADHAR	BBA
13	231FK01026	BOMMINI YUVANAGA SAI	BBA
14	221FA04746	DINESH GUPTA	CSE
15	231FA04865	PUNUGULA HARI SIVA SAI MANIKANTA	CSE
16	221FA05200	JAMPANA ANIRUDH	ECE
17	201FA04284	KARI KAVYA SREE CHOWDARY	CSE
18	211LA06016	PATHAN AFRIN SULTHANA	EEE
19	221LA12005	LAKKA HARI PRASAD	AG
20	211FA04444	KOTLA PUJITHA	CSE
21	231FA19086	BEJAWADA HARIKA	CSECS
22	231FA04937	DODDA KAVYA SUCHARITHA	CSE
23	231FA18138	ARAVA PRIYA DARSINI	AIANDML
24	211FK01088	SHAIK FAIZULLA	BBA
25	231FA14046	VELPULA PRASANNA KUMAR	BI
26	221FA07050	MANUKONDA HARSHITHA	IT
27	211FW01041	THINNELAPUDI HARIKA	BSC HONS
28	221FW01060	MEKA NAVYA	BSC HONS
29	231FA04185	KOSANAM HEMA	CSE
30	211FK01040	KINTALI SAKETH	BBA
31	231FA04B51	DUDDU KULA VIKRAM	CSE
32	231FA04G79	DALVEER SINGH	CSE
33	221FA04564	KAKUMANU NITHIN CHANDRA	CSE
34	231FA18165	SIGIRISETTY LEELA VENKATA SASANK	AIANDML
35	221FA05125	DUGGA LAKSHMIKANTH REDDY	ECE
36	211FA04130	NALLABOTHU PRAVALLIKA	CSE
37	231FJ01025	SUMANT KUMAR GOND	BCA
38	211FA16012	ALAN TOMY	BM
39	221FK01049	MOHAMMAD FARJANA	BBA
40	231FA04D58	AKKINENI MEGHANA	CSE
41	231FW01076	SOWJANYA PENUMUDI	BSC HONS
42	221FA05014	MOHAMMAD HAMZA	ECE

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43	211FA05201	KODURU SWATHI SREE	ECE
44	231FA07053	DESU VENKATA VYSHNAVI	IT
45	231FA04B94	JAVVAJI SAI KUMAR	CSE
46	221LA02005	JALASUTHRAM SHYAM SUNDAR KALI VARA PRASAD	CHEM
47	201FA04061	MANNAVA AKSHAY VARMA	CSE
48	221FA01199	KUMBHA NAGA PRAVEEN	BIOTECH
49	231FA01161	NALLAMOTHU HARIKA	BIOTECH
50	231FW01052	SANKARAPU THANUJA	BSC HONS
51	221FA05106	VELAMA RAJA	ECE
52	221FA14015	BEERAM ALEKHYA	BI
53	231FA04C47	DUNNA BHARATH KUMAR	CSE
54	231FW01051	ROUTHU VEERA SAMEER KUMAR	BSC HONS
55	231FA04E83	GALLA APOORVA	CSE
56	231FA18331	MANEPALLI AMULYA	AIANDML
57	231FA18348	GANIVADA VENKATA SASHANK	AIANDML
58	231FD01046	PENUMUDI TEJA SAI	MCA
59	201FA01009	TADIMETI. V. L. K. V. SAI SARANYA	BIOTECH
60	231FA04990	IMMADI BHARGAVI	CSE
61	231FA15031	MAMIDI MANASA NAGA SAI	FT
62	231FA04068	NIPPULETI.B.N.V.S SAI AKHIL	CSE
63	211FA04561	AMBATI NAGA NAVEEN CHOWDARY	CSE
64	201FA04458	VINNAKOTA LOKESH	CSE
65	231LA06015	CHAVVAKULA NAVEENKUMAR	EEE

Awareness on the Prevention on Monsoon Season Diseases

Date:27.09.2023

Venue: Sudhapalli

On 27th September 2023, Awareness on the prevention of monsoon season diseases was organized by the EEE department of NSS – UEAC wing in suddapalli.



This event aimed to create awareness on the prevention of monsoon season diseases like dengue, malaria, etc. and provide some preventive and safety measures to overcome the diseases. The target audience for this event was the villagers near Vignan's university.

This event began at 10:30 am with a total of 35 students from the EEE department including the chief organizer, chief coordinator and section coordinators.

The volunteers divided into groups and spread across the village and created awareness among the villagers on, how to come across the monsoon season diseases and told them the safety measures and preventive steps to take care of themselves.

In conclusion, the villagers got the awareness about diseases that occur in monsoon season and steps to prevent them.



Awareness on Monsoon Season Diseases on 27.09.2023

List of Volunteers:

Awareness on Prevention on Monsoon Season Diseases on 27.09.2023			
S. No	Reg. No	Name	Branch
1	211FA06034	DAMMU YASWANTH NAVEEN KUMAR	EEE
2	221FA06010	TUMULURI SRI GANESH CHANDRA	EEE
3	211FA06033	SUDA MARUTHI GOPI CHAND	EEE
4	211FA06005	CHAVALAMUDI SAI MONIKA	EEE
5	221FA06020	MEDIKONDA LAKSHMI SUKANYA	EEE
6	211FA06037	GUDIPALLI TEJA	EEE
7	211FA06035	MANDAGIRI NAVEEN VINAY	EEE
8	211FA06025	MAJETI SATYA MOHANA KRISHNA	EEE
9	221FA06015	CHIMATA PREM SAI	EEE
10	211FA06004	MEJANRAO SUSHMA	EEE
11	211FA06032	VAKA NAGA PRATHAP	EEE
12	211FA06008	RAJANALA ANNAPURNA DEVI	EEE
13	221FA06011	SHAIK IMRAN BASHA	EEE
14	221FA06019	MUNNANGI VARSHITHA	EEE
15	211FA06036	CHATTI GURU SAI KUMAR	EEE

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16	221FA06007	SEETALAPU UMESH NAGA CHANDRA	EEE
17	201FA06003	VEJENDLA AKASH	EEE
18	221FA06031	ATTILI PRABHAKAR VENKATA SAI	EEE
19	221FA06021	PEDDIRAJU LEELA VENKATA LAKSHMI	EEE
20	201FA06005	AHMED NADIR ABDELMAGID MOHAMED	EEE
21	221FA06013	SANCHULA BADARI AJITH NARAYANA	EEE
22	221FA06025	BOLLU LOKESWARI	EEE
23	201FA06007	ADDEPALLI VASAVI KALYANI	EEE
24	211FA06001	THOTA YASWITHA	EEE
25	221FA06023	NALAMOTU VENKATA SACHIN	EEE
26	211FA06009	VEMURI MOHANA ARAVIND	EEE
27	221FA06024	MOHAMMAD MAHABUBE SUNAYN	EEE
28	221FA06012	SUNKARA EKESWARA REDDY	EEE
29	221FA06014	MYLA JAYANTH KOUSTHUBHA ESWAR	EEE
30	201FA06008	BANTY KUMAR PRASAD	EEE
31	211FA06010	VEMULA CHARAN	EEE
32	221FA06022	ONTIPULLI BALA SUBRAMANYAM	EEE
33	211FA06029	TAVVA SAIMANIKANTHA	EEE
34	211FA06011	VARAGANI ANJANEYULU	EEE
35	211FA06021	KANDRU NOKESH	EEE



HEALTH CAMP

Date: 30.09.2023

Venue: Vejandla

We the team UEAC conducted a Health camp in Vejandla village on 30 September 2023. Ayushman Bhava aligns with the motto of "Sabka Saath Sabka Vikas" (Together with All, Development for All). This philosophy underscores inclusivity, leaving no one behind in healthcare access.

Our 45 NSS volunteers gathered people in the village with the help of panchayat and Anganwadi Asha workers and staff nurse office members and Asha workers and conducted a health camp in VEJENDLA Health Centre near Sachivalayam. Good health is the biggest treasure, to attract a huge number of people our NSS volunteers went to their houses and told them about the importance of the health camp and the importance of AYUSHMAN BHAV theme. Around 300 people attended the health camp. The director of the health camp in NEW DELHI "DR. SHRI HARSHA MANGLA(IAS)" along with the members of professional Doctor of Health centres provided health care services to the people. Free medicines and nutrition were distributed to the people.



List of Volunteers:

Health Camp on 30.09.2023			
S.No	Reg.No	Name	Branch
1	221FW01154	THUMATHI ARUN KUMAR	BSC HONS
2	201FA01037	RASINENI KUSUMASREE	BIOTECH
3	231FA16031	VOORA SRIVANI	BM
4	221FA04009	SRIGAKOLAPU SAI BHARATH	CSE
5	221FA04404	DHADI RAVALI	CSE

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6	211FA04443	KETHA KAVYA	CSE
7	211FA15029	SUNKARA NAGA RAJU	FT
8	231FA05309	AMAN GUPTA	ECE
9	211FK01017	DALAVAI KEERTHI	BBA
10	231FW01020	GOPISETTY VASAVI	BSC HONS
11	231FA14042	PALLA YUGENDRA AMAR BALAJI	BI
12	231FK01004	GUNJI GANGADHAR	BBA
13	231FK01026	BOMMINI YUVANAGA SAI	BBA
14	221FA04746	DINESH GUPTA	CSE
15	231FA04865	PUNUGULA HARI SIVA SAI MANIKANTA	CSE
16	221FA05200	JAMPANA ANIRUDH	ECE
17	201FA04284	KARI KAVYA SREE CHOWDARY	CSE
18	211LA06016	PATHAN AFRIN SULTHANA	EEE
19	221LA12005	LAKKA HARI PRASAD	AG
20	211FA04444	KOTLA PUJITHA	CSE
21	231FA19086	BEJAWADA HARIKA	CSECS
22	231FA04937	DODDA KAVYA SUCHARITHA	CSE
23	231FA18138	ARAVA PRIYA DARSINI	AIANDML
24	211FK01088	SHAIK FAIZULLA	BBA
25	231FA14046	VELPULA PRASANNA KUMAR	BI
26	221FA07050	MANUKONDA HARSHITHA	IT
27	211FW01041	THINNELAPUDI HARIKA	BSC HONS
28	221FW01060	MEKA NAVYA	BSC HONS
29	231FA04185	KOSANAM HEMA	CSE
30	211FK01040	KINTALI SAKETH	BBA
31	231FA04B51	DUDDU KULA VIKRAM	CSE
32	231FA04G79	DALVEER SINGH	CSE
33	221FA04564	KAKUMANU NITHIN CHANDRA	CSE
34	231FA18165	SIGIRISETTY LEELA VENKATA SASANK	AIANDML
35	221FA05125	DUGGA LAKSHMIKANTH REDDY	ECE
36	211FA04130	NALLABOTHU PRAVALLIKA	CSE
37	231FJ01025	SUMANT KUMAR GOND	BCA
38	211FA16012	ALAN TOMY	BM
39	221FK01049	MOHAMMAD FARJANA	BBA
40	231FA04D58	AKKINENI MEGHANA	CSE
41	231FW01076	SOWJANYA PENUMUDI	BSC HONS
42	221FA05014	MOHAMMAD HAMZA	ECE
43	211FA05201	KODURU SWATHI SREE	ECE
44	231FA07053	DESU VENKATA VYSHNAVI	IT
45	231FA04B94	JAVVAJI SAI KUMAR	CSE



Awareness on Mental Health

Date: 06.11.2023

Venue: Vignan Junior college Vadlamudi

Team UEAC conducted an event to create awareness on mental health emotional well-being, and drug eradication, and make them understand their importance by shaping themselves into assets of the country.

They will get to know how the individual should react to the situation and also stabilize themselves as per the situation and dos or don'ts of their current age by considering a few demographic conditions as per societal change.



Session on Mental Healthon 06.11.2023

List of volunteers:

Session on Mental Health on 06.11.2023			
S. No	Reg. No	Name	Branch
1	221FK01010	BHARATH ABHINAY DODDA	BBA
2	221FK01017	CHATTU SATVIK	BBA
3	221FK01023	DASARI SRI PRANATHI	BBA
4	221FK01026	EANUGULA YASWANTH	BBA
5	221FK01036	JAKKU VENKATA VIJAY REDDY	BBA

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6	221FK01043	KURRI ASRITH REDDY	BBA
7	221FK01049	MOHAMMAD FARJANA	BBA
8	221FK01053	NALLABOTULA SOUMYA	BBA
9	221FK01057	PANCHARIYA BHAVESH	BBA
10	221FK01060	PERAM VENKATA SAI SAMPATH	BBA
11	221FK01064	PULI BHAVYA SREE	BBA
12	221FK01071	SHAIK ABDUL GAFFAR	BBA
13	221FK01077	SHIVAM KUMAR	BBA
14	221FK01083	VIRAJ SHARMA	BBA
15	221FK01088	POLISSETTY S H N MANIKANTA	BBA
16	221FK01095	LAGHUMAVARAPU SIVA NAGA MANI SWETHA	BBA
17	221FK01101	SADINENI RADHIKA	BBA
18	221FK01103	RATHAMSHETTY BHUVANESHWAR	BBA
19	221FK01107	GALIZERUGULA BHANU TEJA	BBA
20	211FK01045	KOTA PRIYANKA	BBA
21	211FK01050	MALLADI SAI ANVITHA	BBA
22	211FK01059	MUKKAMALLA KARTHIK REDDY	BBA
23	211FK01064	NARSING KEERTHI PRIYANKA	BBA
24	211FK01071	PONNAPATI AKESH REDDY	BBA
25	211FK01078	RAVINUTHALA JOSEPH SUNEETH	BBA
26	211FK01083	SHAIK KHURSHID	BBA
27	211FK01087	SHAIK CHEJARLA JANNATH HUSSAIN	BBA
28	211FK01092	SHAIK MOHAMMAD MUSTHAF A	BBA
29	211FK01096	SHAIK SAMADH	BBA
30	211FK01102	TALLA GOKUL KRISHNA	BBA
31	211FK01107	VANGALA SAI PRIYA	BBA
32	211FK01112	WASIM AHMAD	BBA
33	211FK01117	LOLLA SRI VEERA PHANINDRA	BBA
34	211FK01127	ADAPA BHUVANESHWAR	BBA
35	211FK01149	PINJARI SAMEERA	BBA



Awareness on Mental Health

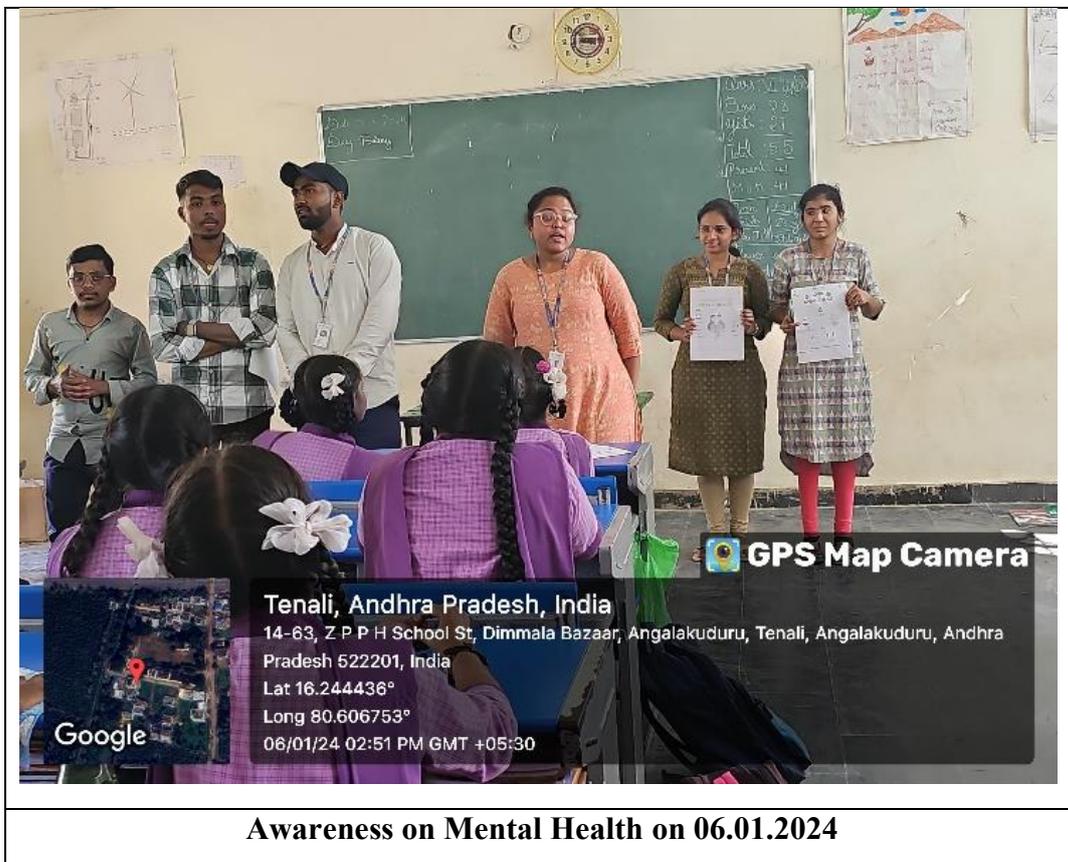
Date: 06.01.2024

Venue: ZP High School Angalakuduru

Our adopted school, Angalakuduru, held a mental health awareness event for kids in various sectors of the school community on January 6, 2024. This event was attended by 40 students, along with section and chief organizers, coordinators, and a few volunteers. via teaching pupils about mental health.

Peer relationships, the academic setting, and social pressures may all have a big effect on students' mental health. Therefore, it is crucial to raise awareness and offer tools that support mental health in the educational environment. In any case, the attendees were really eager to make it a huge success. The importance of mental health was explained to the kids, and Establishing a welcoming and encouraging environment helps students talk about their emotions without worrying about being judged, including social, psychological, and emotional one's health. The government officials expressed gratitude for each stage of the program. The pupils were quite agitated by this incident.

Students got to know about the importance of mental health. They can yield numerous positive outcomes that contribute to their overall well-being in the future and stable minds towards their goals.



**List of volunteers:**

Awareness on Mental Health on 06.01.2024			
S. No	Regd. No	Name	Branch
1	221FA01031	K. RAVEENA	BT
2	221FA01014	T. VASUNDHARA	BT
3	221FA01029	M. ASHRITHA	BT
4	221FA01004	AMRESH KUMAR	BT
5	221FA01053	TULASI VARANASI	BT
6	221FA01005	PRINCE KUMAR	BT
7	221FA01052	N. MEGHANA	BT
8	221FA01020	SUNNY KUMAR	BT
9	221FA01027	NITISH KUMAR	BT
10	221FA01001	SAKLEN RAZA	BT
11	221FA01010	M. PRAVALLIKA	BT
12	221FA01063	SUCHITHA SHARON	BT
13	221FA01104	J. TRIVENI	BT
14	221FA01112	B.V. HEMAHARSHINI	BT
15	221FA01183	G.V.N. SANTHOSHI	BT
16	221FA01167	D. MADHAVI	BT
17	221FA01163	SK. HARSHAD	BT
18	221FA01136	A. CHANDRIKA	BT
19	221FA01112	HARSHINI	BT
20	221FA01146	HUSSAIN	BT
21	221FA01148	LALITHA	BT
22	221FA01164	SD. NAZIYA	BT
23	221FA01191	DIKSHA KUMARI	BT
24	221FA01206	MS. SAHIL	BT
25	221FA01152	MOKSHITHA	BT
26	221FA14047	S. GEETHIKA	BI
27	221FA14028	SK. HABIB	BI
28	221FA14049	R. YASAWI	BI
29	221FA14007	MAMATHA	BI
30	221FA14015	B. ALEKHYA	BI
31	221FA14020	R. HARSHITHA	BI
32	221FA14033	A. SOUMYA	BI
33	221FA14055	V. VAISHNAVI	BI
34	221FA14004	S. BHARGHAVI	BI
35	221FA14056	K. SATHWIKKA	BI
36	221FA14037	V. SRI VARSHA	BI
37	221FA14054	K. SHOBHA RANI	BI
38	221FA14025	P. SUSANNAH JOY	BI



39	221FA14017	B. PRAVALLIKA	BI
40	221FA14003	M. SAMEERA	BI

Awareness on Mental Health

Date:27.02.2024

Venue: Primary School Selapadu

On 6th January 2024 in our adopted school Selapadu, The Team UEAC conducted an event on Awareness on mental health at Primary School Selapadu. The 20 students including section and chief organizers, coordinators and volunteers participated in this event, by educating students about mental health. The academic environment, peer interactions, and societal pressures can significantly impact students' mental well-being. Thus, it is essential to create awareness and provide resources that promote mental health within the school setting. Anyway, the participants were highly enthusiastic to make it a big success. The students came to know about the significance of mental health and Creating an open and supportive atmosphere encourages students to discuss their feelings without fear of judgment like emotional, psychological, and social well-being. Every step of the program was appreciated by the representatives of the administration. This event created a great stir among the students.



**VIGNAN'S**

Foundation for Science, Technology & Research

(Deemed to be University)

-Estd. u/s 3 of UGC Act 1956

List of Volunteers:

Awareness on Mental health on 27.02.2024			
S. No	Reg. No	Name	Branch
1	221FA07001	GUDIPATI SIRI KUMAR	IT
2	221FA07005	KONDEPU DINESH KUMAR	IT
3	221FA07009	BOLLA LALITHA SRI	IT
4	221FA07012	DESU PURNA VENKATA NAGENDRA VAISHNAVI	IT
5	221FA07015	PATTA MALLIKHARJUN	IT
6	221FA07019	ELSHAFEAI ABDELMONIM ABDELRAHMAN MOHAMED	IT
7	221FA07024	BAPATHU SRIRAM REDDY	IT
8	221FA07028	YARRU YOGA LAKSHMI THIRUPATHAMMA	IT
9	221FA07032	ALLU MAHESH POTHAN	IT
10	221FA07037	PARASA JAGADEESH GOWD	IT
11	221FA07045	SHAIK KHAJA MOHIDDIN CHISTY	IT
12	221FA07048	VALLABHANENI VUHARIKA	IT
13	221FA07052	GANDRU AKHILA	IT
14	221FA07058	MADHANU MOKSHA NITHISHA	IT
15	221FA07062	CHIRUMAMILLA TRIVENI	IT
16	221FA07070	ALLANKI CHAKRI CHAITANYA	IT
17	221FA07083	AMMISSETTI VENKATA VAMSI KRISHNA	IT
18	221FA07095	POLAVARAPU BHANU TEJA	IT
19	221FA07105	NADIMPALLI TARUN SAI KUMAR	IT
20	221FA07123	KONDRAGANTI LOKESH CHOWDARY	IT



C22

**Curriculum &
Course Contents**

B.Tech. (MPC Stream)

w.e.f. batch 2022-29

ORIENTATION
PROGRAM
&
PRE
SEMESTER

B.Tech.

COURSE CONTENTS

ORIENTATION &
PRE-SEMESTER

ORIENTATION PROGRAM

- ▶ 22SA101 - Orientation Program (Induction)

PRE SEMESTER

- ▶ 22MT101 - Foundations of Engineering Mathematics (MPC Streams)
- ▶ 22EN101 - English Language and Communication
- ▶ 22TP101 - Foundations of Quantitative Aptitude and Logical Reasoning
- ▶ 22AM101 - IT Tools
- ▶ 22SS104 - Stories of Indian Independence
- ▶ 22EN102 - Universal Human Values

22SA101 ORIENTATION PROGRAM

Hours Per Semester :

L	T	P	SL	C
0	30	0	0	1

Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE: Nil**COURSE DESCRIPTION AND OBJECTIVES:**

This course is intended to help the students in getting adjusted with the new environment, to develop bondage with other students and faculty along with learning the institutional policies. The purpose of the orientation course is to create awareness on various issues that are essential for any individual. To familiarize the fresh entrants with the new environment and system in engineering education. To make the students a responsible citizens. To promote smooth transition from +2 level education to graduate program among students.

MODULE-1**0L+12T+0P+0SL = 12 Hours****UNIT-1****SOCIALIZING:**

Interaction with faculty members, Deans, peers, student bodies and alumni.

UNIT-2**ASSOCIATING:**

Eco-friendly practice and sustainable living, teaching sessions to school children of adopted villages, Interaction with farmers and identifying the problems, Field Visits.

PRACTICES:

- Stress assessment and management.
- Sustainable living.
- Iconic visit.

MODULE-2**0L+18T+0P+0SL = 18 Hours****UNIT-1****GOVERNING:**

Brief about regulations and assessment pattern, Interaction with the functionaries i.e. Chancellor, Vice Chancellor and Registrar.

UNIT-2**EXPERIENCING:**

Physical activity, Creative arts, Literary activities.

UNIT-3**MEDITATION:**

Customizing Daily routines and Habits, Practicing Meditation.



SKILLS:

- ✓ *Understanding of organizational knowledge.*
- ✓ *Compliance Awareness.*
- ✓ *Team Integration.*
- ✓ *Adaptability and Confidence.*

PRACTICES:

- Yoga and meditation.
- Sports and Games.
- Any of the one creative art.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Become familiar with the institute ethics and culture.	Apply	7,8,9,10,11
2	Cope up with stress management through meditation.	Analyze	7,8,9,10,11
3	Socially conscious towards the society and environment.	Apply	7,8,9,10,11
4	Build bonds with peers and faculty members.	Apply	7,8,9,10,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) :

22MT101**FOUNDATIONS OF
ENGINEERING MATHEMATICS**

Hours Per Week :

L	T	P	SL	C
0	3	2	0	1

PREREQUISITE KNOWLEDGE: Basics of set theory, Algebra.**COURSE DESCRIPTION AND OBJECTIVES:**

This course aims to provide students with fundamental mathematical concepts essential for engineering applications. It covers topics such as set theory, functions, matrices, determinants, calculus, and vectors. Students will develop problem-solving skills and analytical reasoning to apply mathematical principles effectively in various engineering domains.

MODULE-1**0L+06T+04P+0SL=10 Hours****UNIT-1****SETS AND SET OPERATIONS:**

Definition and representations of sets, Cardinality, Operations: union, intersection, complement, symmetric difference, Cartesian product, Venn diagrams (basic) and De Morgan's law.

UNIT-2**FUNCTIONS AND EQUATIONS:**

Functions and their properties, Domain, Range, Composition of two functions, Types of functions, Inverse of a function.

Polynomials, Factorization, Quadratic equations, Inequalities (linear).

PRACTICES:

- Solve set operation problems using Venn diagrams.
- Compute the domain and range of given functions.
- Verify De Morgan's law with examples.
- Factorize quadratic equations and determine their roots.
- Identify and classify different types of functions.

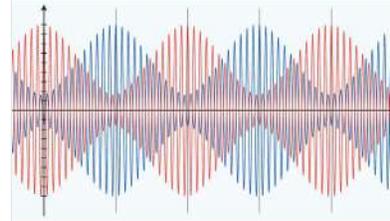
MODULE-2**0L+12T+08P+0SL=20 Hours****UNIT-1****MATRICES AND DETERMINANTS:**

Types of matrices, Basic matrix operations: addition, multiplication, transpose (up to 3×3).

Determinants and their properties, Inverse of a matrix (if it exists) and its computation (up to 3×3).

UNIT-2**CALCULUS:**

Limits and continuity: simple numerical approach, Basic differentiation rules (product, quotient, chain rules), Derivatives of elementary functions (polynomials, exponentials, logarithms, trigonometric functions), Basic integration techniques (substitution, by parts), Definite and indefinite integrals, Geometric interpretation of integrals (area under curves).

**FOUNDATION
ENGINEERING
MATHEMATICS**

Engineering Mathematics and Operations Research:
Tools, Techniques, Theory, and Applications Used
in Manufacturing and Management Science

Faridon Amdjadi and Dharminder Singh



Image source: <https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd-9GcQMTm-2hfVri6E0pB-BeoAHmTfm4D57grCy-PGQ&s>

SKILLS:

- ✓ *Mathematical problem-solving.*
- ✓ *Application of algebra, calculus and vectors in engineering.*
- ✓ *Logical reasoning and analytical thinking.*
- ✓ *Graphical and numerical representation of data.*

UNIT-3**VECTORS AND GEOMETRY:**

Basic vector operations (addition, scalar multiplication, dot product, cross product, triple product), Geometric interpretation of vectors in 2D and 3D.

PRACTICES:

- Compute determinants and inverse of given matrices.
- Compute matrix operations.
- Solve differentiation problems using product and quotient rules.
- Evaluate definite and indefinite integrals using appropriate techniques.
- Perform vector operations and verify their geometric interpretations.
- Apply matrices to solve systems of linear equations.
- Matrix Multiplication Using the *Urdhva-Tiryagbhyam Vedic Sutra*. Compare results with standard methods and reflect on computational efficiency.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Solve set theory and function-related problems effectively.	Apply	1, 3
2	Utilize matrices and determinants for engineering applications.	Apply	1, 5
3	Analyze and solve differential and integral calculus problems.	Analyze	2, 6
4	Use vector analysis to interpret real-world problems.	Apply	1, 3
5	Implement mathematical problem-solving skills in engineering.	Apply	2, 10

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS) :**TEXT BOOKS:**

1. B.S. Grewal, "Higher Engineering Mathematics", Khanna Publishers, 44th Edition, 2017.
2. Erwin Kreyszig, "Advanced Engineering Mathematics", John Wiley & Sons, 10th Edition, 2011.

REFERENCE BOOKS:

1. R.K. Jain, S.R.K. Iyengar, "Advanced Engineering Mathematics", Narosa Publishing, 5th Edition, 2016.
2. H.K. Dass, "Advanced Engineering Mathematics", S. Chand Publishing, 28th Edition, 2018.
3. M.D. Greenberg, "Advanced Engineering Mathematics", Pearson Education, 2nd Edition, 1998.

22EN101 ENGLISH LANGUAGE AND COMMUNICATION

Hours Per Week :

L	T	P	SL	C
0	3	2	0	1

PREREQUISITE KNOWLEDGE: Basic proficiency in English (A1-A2 level), with the ability to understand and participate in simple conversations and write short texts.

COURSE DESCRIPTION AND OBJECTIVES:

This course is designed to strengthen intermediate language skills, focusing on improved fluency, vocabulary expansion, grammatical accuracy, and effective communication in academic, social, and professional settings. The course prepares learners for B1 level proficiency, enabling them to handle a wider range of communication tasks.

MODULE-1

0L + 6T + 4P + 0SL = 10 Hours

UNIT-1

ENHANCING EVERYDAY COMMUNICATION:

- **Reading:** Interpreting short articles, messages, and dialogues with implied meanings.
- **Writing:** Completing guided writing tasks such as formal requests and informal responses.
- **Listening:** Understanding longer conversations and identifying tone and purpose.
- **Speaking:** Describing routines, experiences, and making comparisons using various tenses.

UNIT-2

SOCIAL INTERACTIONS AND OPINIONS:

- **Reading:** Understanding text structures and making inferences.
- **Writing:** Correcting and rewriting passages with grammatical errors.
- **Listening:** Extracting specific and general information from monologues.
- **Speaking:** Expressing personal opinions with justifications in short discussions.

PRACTICES MAPPED WITH IKS:

- Reading emails, blogs, and notices with detailed comprehension: **Script styles from palm leaf manuscripts.**
- Listening to authentic audio clips and identifying perspectives: **Oral transmission techniques.**
- Engaging in pair and group discussions on daily topics: **Community storytelling/council culture.**
- Writing short reports and summaries: **Panchayat records and administrative logs.**

MODULE-2

0L+12T+08P+0SL=20 Hours

UNIT-1

EXPRESSING THOUGHTS AND OPINIONS:

- **Reading:** Analyzing articles and opinion pieces.
- **Writing:** Writing coherent paragraphs expressing opinions.
- **Listening:** Listening to debates and identifying arguments.
- **Speaking:** Participating in structured group discussions on likes/dislikes and choices.

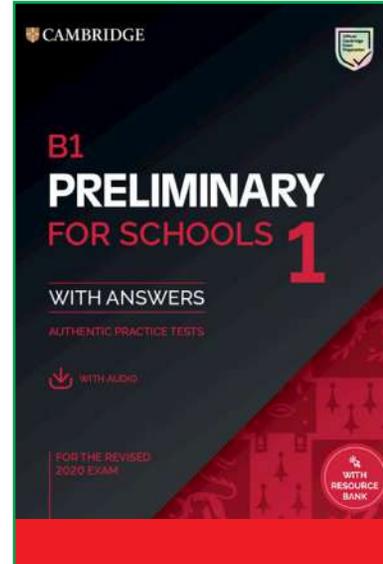


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SKILLS:

- ✓ *Receptive Skills – Reading and Listening.*
- ✓ *Productive Skills – Writing and Speaking.*
- ✓ *Public Speaking –Presentation.*

UNIT-2**GOALS, ASPIRATIONS, AND PERSONAL DEVELOPMENT:**

- **Reading:** Understanding and summarizing goal-setting articles.
- **Writing:** Writing short essays on career plans.
- **Listening:** Comprehending longer audio clips related to personal stories and achievements.
- **Speaking:** Delivering short talks on aspirations and future plans.

UNIT-3**RELATIONSHIPS AND IDENTITY:**

- **Reading:** Understanding and analyzing email correspondence.
- **Writing:** Writing formal and informal emails and messages.
- **Listening:** Listening for relationship dynamics and speaker attitude.
- **Speaking:** Giving presentations on personal relationships and milestones.

PRACTICES MAPPED WITH IKS:

- Reading narratives and informative texts: ***Panchatantra, Jataka tales.***
- Listening to podcasts and interviews: ***Oral tradition in storytelling, folk wisdom.***
- Writing structured essays and reflections: ***Spiritual reflection in Indian philosophy.***
- Role-playing interviews and discussions: ***Courtroom and sabha simulations.***

COURSE OUTCOMES:

Upon successful completion of this course, students will be able to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Interpret intermediate-level texts, including articles, blogs, and personal communications.	Apply	6,7,8,9,11
2	Write structured content such as essays, formal emails, and descriptive paragraphs.	Apply	6,7,8,9,11
3	Analyze speaker's intent, tone, and point of view in spoken texts.	Analyze	6,7,8,9,11
4	Evaluate and present arguments with clarity and coherence.	Evaluate	6,7,8,9,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS) :**TEXT BOOKS:**

1. B1 Preliminary for Schools – Student's Book by Cambridge University Press, 2020.
Aligned with B1-B2 level learners, this textbook provides comprehensive practice in all four skills using real-world contexts.

REFERENCE BOOKS:

1. B1 Preliminary for Schools Trainer (Six Practice Tests) – Cambridge University Press, 2020.
Includes exam-style tasks, strategies, and explanations to build confidence and fluency.

2. English Grammar in Use (Intermediate) by Raymond Murphy – Cambridge University Press.
Self-study grammar book with clear explanations and practice exercises, suitable for B1–B2 learners.
3. Write & Improve – [Cambridge Write & Improve online tool](#).
An interactive writing platform providing real-time feedback to enhance writing skills.
4. BBC Learning English – Intermediate Section – BBC Learning English.
Free listening, vocabulary, and grammar materials tailored for intermediate learners.
5. Cambridge English Online Dictionary and Thesaurus – <https://dictionary.cambridge.org>
Useful for building vocabulary and understanding word usage with examples.

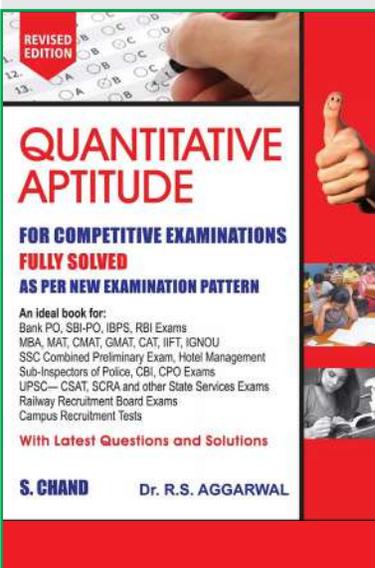


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22TP101 FOUNDATIONS OF QUANTITATIVE APTITUDE AND LOGICAL REASONING

Hours Per Week :

L	T	P	SL	C
0	5	0	0	1

PREREQUISITE KNOWLEDGE: Basic Mathematics Proficiency.

COURSE DESCRIPTION AND OBJECTIVES:

The “Foundation to Intermediate Quantitative Aptitude & Logical Reasoning” course is designed to develop both foundational and advanced skills in arithmetic, data interpretation, puzzles, and logical reasoning. By incorporating hands-on problem-solving exercises, strategic thinking, and time management techniques, the course enhances critical thinking and systematic problem-solving abilities. It equips students with the tools to tackle complex challenges efficiently, improve speed and accuracy, and prepare effectively for competitive exams, placements, and professional tasks.

MODULE-1

0L+10T+0P+0SL=10 Hours

UNIT-1

QUANTITATIVE APTITUDE 1:

Understanding Numbers and Their Types, Finding Common Multiples and Divisors, Percentages and Their Applications of Ratios and Proportions.

UNIT-2

QUANTITATIVE APTITUDE 2:

Calculating Profit, Loss, and Discount, Finding Averages and Solving Mixture Problems, Calculating Simple and Compound Interest, Time and Work Problems.

PRACTICES:

- Each concept would be taught in detail in the class.
- Followed by 10 problems solved in the class.
- Timer based questions solving during class room practice.
- Students would have to solve 10 additional problems as homework assignment in each concept.

MODULE-2

0L+20T+0P+0SL=20 Hours

UNIT-1

QUANTITATIVE APTITUDE 3:

Problems on Time and Distance, Average Speed, Relative Speed and its application on Trains Ages related with Ratios, Introduction to Permutations and Combinations, Probability Problems.

UNIT-2

LOGICAL REASONING 1:

Finding Patterns in Number Series, Identifying Patterns in Letter Sequences, Letter and Number Analogies, Identifying the Odd One Out with multiple categories, Decoding different coded patterns, Syllogism Problems with Venn diagrams.

UNIT-3**LOGICAL REASONING 2:**

Puzzles involving Seating related problems, Blood Relations with Family Trees, Solving Problems on Directions, Order and Ranking Problems with multiple criteria, Solving Seating Arrangement Problems, Problems involving Days, Dates in Calendars and Finding different angles in Clocks.

PRACTICES:

- Each concept would be taught in detail in the class.
- Followed by 10 problems solved in the class.
- Timer based questions solving during class room practice.
- Students would have to solve 10 additional problems as homework assignment in each concept.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Develop foundational skills in arithmetic, algebra, and equations for effective problem-solving.	Apply	1, 5
2	Enhance data interpretation accuracy for graphs and charts.	Analyze	1, 4, 5
3	Build confidence and expertise for aptitude tests and professional exams.	Evaluate	2, 5
4	Master time-efficient problem-solving techniques and systematic approaches to tackle complex challenges.	Create	1, 3, 5
5	Strengthen logical reasoning to solve puzzles, sequences, and arrangements efficiently.	Analyze	2, 6, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs):**TEXT BOOKS:**

1. R. S. Aggarwal - Quantitative Aptitude for Competitive Examinations - S.Chand Publications - Edition-2023.
2. R. S. Aggarwal - A Modern Approach to Logical Reasoning - S.Chand Publications - Edition-2022.

REFERENCE BOOKS:

1. Trishna Knowledge Systems- Quantitative Aptitude for Competitive Examinations - Pearson Publication - First Edition-2013.
2. R. S. Aggarwal - A Modern Approach to Verbal & Non-Verbal Reasoning - S.Chand Publication - Revised Edition-2018.
3. B.S. Sijwali & S. Sijwali - A New Approach to Reasoning - Arihant Publication - Edition-2018.

SKILLS:

- ✓ Develop the ability to analyze problems logically and derive effective solutions.
- ✓ Master calculations and numerical reasoning for tackling arithmetic and algebraic challenges.
- ✓ Gain proficiency in interpreting and analyzing data through charts, graphs, and tables.
- ✓ Enhance skills in pattern recognition, critical thinking, and solving puzzles.
- ✓ Learn strategies to solve problems quickly and efficiently within time constraints.

22AM101 IT TOOLS

Hours Per Week :

L	T	P	SL	C
0	0	5	0	1

PREREQUISITE KNOWLEDGE: Nil**COURSE DESCRIPTION AND OBJECTIVES:**

- Equip students with practical knowledge and skills in using essential IT tools such as:
 - Microsoft Word, Excel, and PowerPoint.
 - LaTeX for professional document preparation.
- Enable students to apply these tools in academic, personal, and professional.

MODULE-1**0L+0T+10P+0SL=10 Hours****UNIT-1****WORD:**

- Create a table of student marks with subjects, apply shading, change border styles, and align text.
- Create a form letter for a notice and use Mail Merge to send it to a list of student names and roll numbers.
- Design a basic resume with sections for personal info, education, skills, and interests. Use bullet points, alignment, and simple borders.
- Create a 2-column newsletter layout with headers, images, text boxes, and WordArt.
- Create a content index at the top of the page. Add hyperlinks or bookmarks to navigate to each section.
- Create a brochure for a 2-day academic conference with schedule, keynote speakers, and contact info using creative layout and styles.

UNIT-2**EXCEL:**

- Format a student mark sheet with at least 5 subjects and calculate total and average.
- Create a payroll system in Excel for 5 employees given Basic salary, 40% for D.A; 12% for HRA; 10% for TA; 10% for CCA; 12% for PF; IT 10%. Calculate the gross and net salary.
- Use SUM, AVERAGE, MIN, MAX functions on sales data for five products across 6 months.
- Use an IF function to assign "Pass" or "Fail" based on marks (>35).
- Create a bar chart comparing quarterly sales across different regions.

MODULE-2**0L+0T+18P+0SL=18 Hours****UNIT - 1****ADVANCED EXCEL:**

- Highlight all cells in a sales column that are above ₹50,000 using conditional formatting.
- Sort employee records by department and filter to show only those with experience > 5 years.
- Use a Pivot Table to summarize sales by product and region.
- Create an employee lookup sheet where entering an Employee ID returns name, department, and salary.
- Build a monthly attendance sheet for a class, calculate attendance percentage, and highlight students below 75%.
- Develop an EMI calculator that takes principal, interest rate, and tenure to calculate monthly payments.

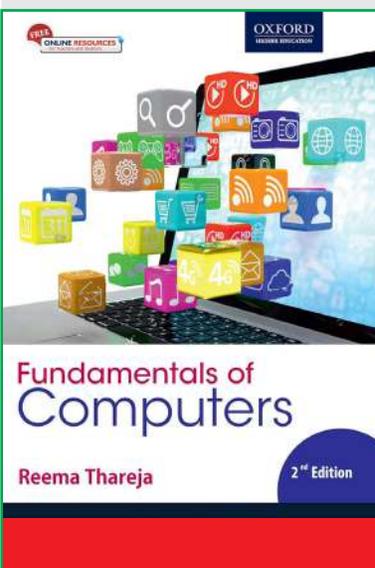


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UNIT-2**POWERPOINT:**

- Create a 5-slide presentation introducing yourself—name, interests, hobbies, and goals. Apply different slide layouts and basic transitions.
- Create a 3-slide presentation on your favourite place. Include images, shapes, and text boxes, and use picture styles.
- Create a presentation showing sales data. Insert a table and a chart (bar/pie) to visualize the data.
- Use Slide Master to create a consistent design for all slides (e.g., university (VFSTR) logo in header/footer and common font styling).
- Create a presentation containing an embedded video or audio clip, and set it to play automatically.

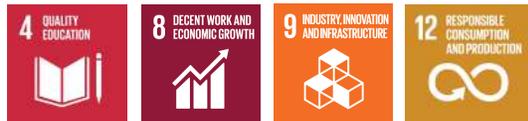
UNIT-3**LATEX:**

- Create a LaTeX document with a title, author, and date. Include two paragraphs and a section heading.
- Demonstrate text formatting by creating a paragraph using bold, italic, underline, and monospace fonts.
- Create a bulleted list of at least 3 hobbies and a numbered list of your top 3 goals.
- Write the quadratic formula and a few basic math expressions such as fractions, exponents, and square roots.
- Insert an image of your choice (e.g., example-image.jpg) into a document and add a caption below it.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Create word documents, presentations and spread sheets by applying various tools	Apply	2,5
2	Usage of latex tool for report writing	Apply	5,6

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) :**TEXT BOOKS:**

1. Fundamentals of Computers by Reema Thareja, Oxford University Press 2nd edition 2019, India.
2. Lamport, Leslie (1994). LaTeX: A Document Preparation System, User's Guide and Reference Manual (2nd ed.). Pearson Education.
3. LaTeX: A Document Preparation System by Leslie Lamport.

REFERENCE BOOKS:

1. John Walkenbach, Herb Tyson, Michael R.Groh and FaitheWempen, "Microsoft Office 2010 Bible", Wiley.

SKILLS:

- ✓ Formatting, document design, resume & letter writing, mail merge.
- ✓ Data entry, formulas, payroll systems, pivot tables.
- ✓ Slide creation, use of multimedia and animations.
- ✓ Posters, brochures, magazine cover creation.
- ✓ Basic webpage creation using hyperlinks and styles.
- ✓ Using Excel for formulas and data analysis.
- ✓ Document design and presentation delivery.
- ✓ LaTeX for academic and professional documents.

22SS104 STORIES OF INDIAN INDEPENDENCE

Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

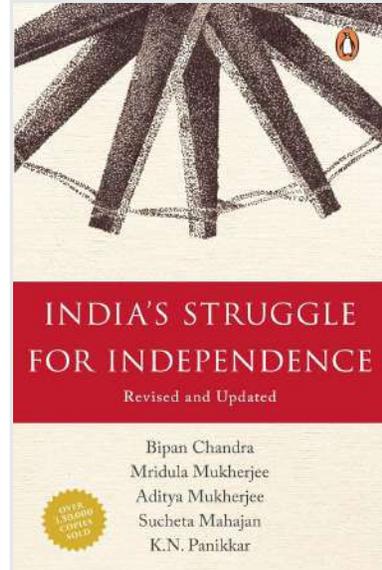


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PREREQUISITE KNOWLEDGE: Basic understanding of Indian history at the high school level.

COURSE DESCRIPTION AND OBJECTIVES:

This course introduces students to the inspiring narratives of India's struggle for independence. It focuses not only on well-known leaders but also on forgotten heroes, movements, and lesser-known revolts that collectively shaped India's freedom story. The course aims to instill national pride, civic consciousness, and leadership qualities in students while strengthening their appreciation for democratic values and social responsibility.

MODULE-1

0L+12T+04P+0SL=12 Hours

UNIT-1

EARLY RESISTANCES AND UNSUNG HEROES:

Revolts Before 1857: Vellore Mutiny, Paika Rebellion, and Sanyasi-Fakir Rebellion; Revolt of 1857: Causes, Course, and Consequences; Tribal and Peasant Uprisings: Santhal Rebellion and Munda Ulgulan; Lesser-Known Freedom Fighters: Rani Gaidinliu; Veerapandiya Kattabomman, and Birsa Munda.

UNIT -2

PATHBREAKING MOVEMENTS AND LEADERS:

Formation of Indian National Congress and Early Nationalism; Swadeshi and Boycott Movements (1905); Role of Revolutionary Activities: Anushilan Samiti and Hindustan Socialist Republican Association; Transnational and Pan-Indian Movements: Ghadar Movement and Khilafat Movement (Ali Brothers).

PRACTICES:

- Research and present a profile of a lesser-known freedom fighter featured in the unit.
- Prepare a comparative chart on the Revolt of 1857 and the Ghadar Movement.
- Participate in a debate or panel discussion on the role of religion and revolution in India's freedom struggle.
- Create a digital timeline covering key events from early revolts to transnational movements (1800–1920).

MODULE-2

0L+18T+0P+0SL=18 Hours

UNIT-1

MASS MOVEMENTS AND PEOPLE'S PARTICIPATION:

Non-Cooperation Movement (1920–22); Civil Disobedience Movement and Salt Satyagraha; Quit India Movement (1942): "Do or Die" Spirit; Role of Women and Students in the Freedom Struggle.

UNIT -2

VISIONARIES AND THEIR LEGACIES:

Mahatma Gandhi: Philosophy of Satyagraha and Ahimsa; Subhas Chandra Bose and INA; Bhagat Singh and Revolutionary Nationalism; Dr. B.R. Ambedkar and the Struggle for Social Justice.

SKILLS:

- ✓ *Leadership and teamwork by understanding collective struggles.*
- ✓ *Analytical skills through study of strategies and methods used in the freedom struggle.*
- ✓ *Communication skills via storytelling, debates, and presentations.*
- ✓ *Ethical thinking by appreciating sacrifice, social responsibility, and patriotism.*

UNIT - 3**TRANSITION TO INDEPENDENCE:**

The Cabinet Mission Plan and Negotiations; Partition and Independence: Causes and Consequences; Integration of Princely States: Sardar Patel's Role; Building a New Nation: Early Challenges.

PRACTICES:

- Group discussions on major movements.
- Role-play / dramatizations: Dandi March, INA Trials, Quit India Movement.
- Documentary review assignments: Freedom struggle films and documentaries.
- Quiz competitions on key events and leaders.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply knowledge of early revolts and lesser-known freedom fighters to understand regional contributions to India's independence.	Apply	6, 11
2	Analyze the development of nationalist ideologies and the role of revolutionary, religious, and transnational movements.	Analyze	6, 8, 9
3	Evaluate the contributions of women, students, and marginalized communities in shaping the mass movements of the freedom struggle.	Evaluate	6, 7, 11
4	Apply lessons of patriotism, leadership, and social responsibility to contemporary societal roles and ethical decision-making.	Apply	6, 7, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS) :**TEXT BOOKS:**

1. Bipin Chandra, *India's Struggle for Independence*, Penguin, 2016.
2. Sekhar Bandyopadhyay, *From Plassey to Partition and After: A History of Modern India*, Orient Blackswan, 2014 (Reprint Edition).

REFERENCE BOOKS:

1. Ramachandra Guha, *Gandhi: The Years That Changed the World*, Penguin, 2018.
2. Sugata Bose, *His Majesty's Opponent: Subhas Chandra Bose and India's Struggle against Empire*, Harvard University Press, 2011.
3. S. Gopal, *Jawaharlal Nehru: A Biography*, Harvard University Press.

22EN102 UNIVERSAL HUMAN VALUES

Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE: Nil

PREREQUISITE KNOWLEDGE:

UHV (Universal Human Values) doesn't necessarily require specific prerequisite knowledge. It's designed to be accessible for students with various backgrounds. However, there are some foundational concepts like 'Basic understanding of ethics, Openness to different perspectives, Ability for critical thinking' might be helpful.

COURSE DESCRIPTION AND OBJECTIVE:

This course helps the students to appreciate the essential complementarity between 'Values' and 'Skills' to ensure sustained happiness and prosperity which are the core aspirations of all human beings. It also helps to develop students' holistic perspective based on self-exploration about themselves (human being) and their family. It further touches issues very briefly related to their role in the society and the nature.

MODULE-1

0L+16T+0P+2SL=16 Hours

UNIT-1

INTRODUCTION TO VALUE EDUCATION:

Right Understanding, Relationship and Physical Facility (Holistic Development and the Role of Education) Understanding Value Education, (**concept of Dharmasastra**) self-exploration as the Process for Value Education, Continuous Happiness and Prosperity – the Basic Human aspirations. Happiness and Prosperity – Current Scenario.

UNIT-2

HARMONY IN THE HUMAN BEING:

Understanding Human being as the Co-existence of the Self and the Body -Distinguishing between the Needs of the Self and the Body- The Body as an Instrument of the Self- Understanding Harmony in the Self- Harmony of the Self with the Body (**Concept of Sanyam**) - Programme to ensure self-regulation and Health.

PRACTICES:

- Sharing about Oneself.
- Talk on Everyday life situation.
- Reflect on what she/he would do in this situation.
- Exploring Natural Acceptance.

MODULE-2

0L+18T+0P+0SL=18 Hours

UNIT-1

HARMONY IN THE FAMILY AND SOCIETY:

Harmony in the Family – the Basic Unit of Human Interaction-'Trust' – the Foundational Value in Relationship, 'Respect and Excellence' – as the Right Evaluation, Other Feelings, Justice in Human-to- Human Relationship, Understanding Harmony in the Society (**Concept of Nyaya**).

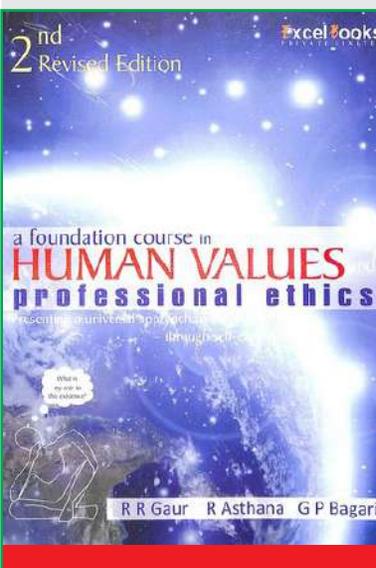


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UNIT-2**HARMONY IN THE NATURE/EXISTENCE:**

Harmony in the Nature- Interconnectedness, self-regulation and Mutual Fulfilment among the Four Orders of Nature- Realizing Existence as Co-existence at All Levels- The Holistic Perception of Harmony in Existence (**Concept of Pancha Mahabhuta**).

UNIT-3**IMPLICATIONS OF THE HOLISTIC UNDERSTANDING – A LOOK AT PROFESSIONAL ETHICS:**

Natural Acceptance of Human Values- Definitiveness of (Ethical) Human Conduct- Competence in Professional Ethics-: Holistic Technologies, Production Systems and Management Models- Typical Case Studies- Strategies for Transition towards Value-based Life and Profession (Concept of Universal Human Values).

PRACTICES:

- Consider the potential consequences of each option (returning vs. keeping).
- Case studies: Analyze real-world examples.
- Group discussions: Sharing perspectives and learn from others' experiences.
- Role-play scenarios to navigate conflict resolution and promote healthy interaction.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply the essentials of human values and skills, self-exploration, happiness and prosperity.	Apply	7,8,9,10
2	Apply to self-regarding the coexistence of the "I" with the body.	Apply	7,8,9,10
3	Identify and evaluate the role of harmony in family, society and universal order.	Evaluate	7,8,9,10
4	Analyze the holistic perception of harmony at all levels of existence.	Analyze	7,8,9,10
5	Develop appropriate technologies and management patterns to create harmony in professional and personal life.	Create	7,8,9,10

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS) :**TEXT BOOK:**

1. R R Gaur, R Sangal, G P Bagaria, "Human Values and Professional Ethics", Excel Books, New Delhi, 2010.

REFERENCE BOOKS:

1. A.N. Tripathi, "Human Values", New Age Intl. Publishers, New Delhi, 2004.
2. Gergen, K. J. "Relational Being: Beyond Self and Community", United Kingdom: Oxford University, Press, 2009.
3. A Nagraj, "Jeevan Vidya ek Parichay", Divya Path Sansthan, Amarkantak", 1998.
4. E.F. Schumacher, "Small is Beautiful: a study of economics as if people mattered, Blond & Briggs, Britain" 1973.
5. R R Gaur, R Sangal, G P Bagaria, "A Foundation Course in Human Values and Professional Ethics", 2009.

I YEAR

B.Tech.

COURSE CONTENTS (MPC STREAM)

- ▶ 22MT103 - Linear Algebra
- ▶ 22MT105 - Calculus and Ordinary Differential Equations
- ▶ 22PY101 - Engineering Physics
- ▶ 22CT102 - Engineering Chemistry
- ▶ 22EE101 - Basics of Electrical and Electronics Engineering
- ▶ 22ME101 - Engineering Drawing
- ▶ 22CS101 - Programming in C
- ▶ 22EN103 - English Proficiency and Communication Skills
- ▶ 22CT101 - Environmental Studies
- ▶ 22MS101 - Management Studies
- ▶ 22CS102 - Problem Solving through Python
- ▶ 22EN104 - Technical English Communication
- ▶ 22CY101 - Cyber Security
- ▶ 22SS101 - Constitution of India
- ▶ 22SA103 - Physical fitness
- ▶ 22SA104 - Life Skills
- ▶ 22SA102 - Self-understanding and Gender Sensitization
- ▶ 22SS102 - Indian Knowledge Systems
- ▶ 22SS103 - Indian Culture and Heritage
- ▶ 22SS105 - Gerontology
- ▶ 22ME102 - Do it yourself

22MT103 LINEAR ALGEBRA

Hours Per Week :

L	T	P	SL	C
3	2	0	3	4

PREREQUISITE KNOWLEDGE: Basics of Geometry and Algebra.**COURSE DESCRIPTION AND OBJECTIVES:**

This course introduces students to the core concepts of linear algebra, including matrix operations, linear systems, vector spaces and inner product spaces. The objective is to equip students with the necessary mathematical tools to model, analyze and solve real-world problems across various engineering and scientific fields.

MODULE-1**UNIT-1****18L+12T+0P+18SL= 48 Hours****MATRICES:**

Elementary row and column operations, Elementary matrices, Similar Matrices, Echelon form, Row reduced echelon form, Rank of a matrix, Inverse of a matrix by Gauss-Jordan method, LU decomposition.

UNIT-2**SYSTEMS OF LINEAR EQUATIONS:**

Systems of linear equations, Matrix representation, Consistency using rank of the coefficient matrix, Solutions: Gaussian elimination method, Gauss-Jordan method, Do-Little method.

PRACTICES:

- Perform elementary row/column operations and find the rank of a matrix.
- Compute the inverse of a matrix using the Gauss-Jordan method and LU decomposition.
- Check consistency of a system of linear equations.
- Solve homogeneous and non-homogeneous linear systems using Gauss elimination, Gauss-Jordan and Do-Little methods.
- Solve linear systems using the **Vyaktāvyakta-Nyāya** (Substitution) and compare with Gaussian elimination. Analyze consistency and computational efficiency.

MODULE-2**UNIT-1****27L+18T+0P+27SL=72 Hours****EIGENVALUES, EIGENVECTORS AND DIAGONALIZATION:**

Characteristic Equation, Eigenvalues, Eigenvectors and their Properties (without proofs), Cayley-Hamilton Theorem (without proof), Diagonalization of a Matrix (only for diagonalizable matrices).

Applications: Inverse of a matrix by Cayley-Hamilton Theorem, Power of a diagonalizable square matrix.

UNIT-2**REAL VECTOR SPACE:**

Real vector space, Subspace, Linear dependence and independence, Linear span, Bases and dimension.

Applications: Row space and column space of a matrix, Determining rank of a matrix using row space and column space, Row and column spaces of similar matrices.

Cengage

Fourth Edition

**LINEAR ALGEBRA
AND ITS APPLICATIONS**

Gilbert Strang

Cengage Digital App includes
• Practice Exams

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SKILLS:

- ✓ Understanding abstract algebraic structures.
- ✓ Solving linear systems using various numerical techniques.
- ✓ Evaluating eigenvalues, eigenvectors and matrix transformations.
- ✓ Applying linear algebra in engineering applications.
- ✓ Using orthogonalization and decomposition in advanced algorithms

UNIT-3**REAL INNER PRODUCT SPACE:**

Real inner product space, Norm of a vector, Orthogonal set, Orthonormal set, Cauchy-Schwarz inequality, Gram-Schmidt orthogonalization process.

Applications: QR decomposition and singular value decomposition (SVD).

PRACTICES:

- Find eigenvalues and eigenvectors of a given matrix and verify Cayley-Hamilton theorem.
- Determine the diagonalization of a matrix and compute its power using diagonalization.
- Identify vector subspaces, bases and dimensions.
- Determine rank of a matrix using row and column spaces.
- Apply Gram-Schmidt process to find an orthonormal basis of a vector space.
- Perform QR decomposition.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1.	Determine the rank of matrices using row operations and solve systems of linear equations to assess their consistency.	Apply	1, 2
2.	Compute eigenvalues, eigenvectors and diagonalization for advanced matrix computations.	Evaluate	1, 2, 5, 9
3.	Analyse and apply inner product space concepts for orthogonalization and decomposition techniques.	Analyze	1, 3, 5
4.	Compare the row and column spaces of similar matrices and evaluate their structural properties for advanced computations.	Apply	1, 2, 9, 10
5.	Utilize linear algebra concepts in real-world applications such as optimization, control systems and artificial intelligence.	Analyze	1, 2, 4, 6, 7, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXT BOOKS:**

1. Gilbert Strang, "Linear Algebra and Its Applications", Cengage Learning, 5th Edition, 2016.
2. Kanti B. Datta, Varma, P. Sekhar, "Calculus, Linear Algebra and Ordinary Differential Equations", Cengage Learning, 1st Edition, 2024.

REFERENCE BOOKS:

1. Erwin Kreyszig, "Advanced Engineering Mathematics", Wiley, 10th Edition, 2011.
2. Sheldon Axler, "Linear Algebra Done Right", Springer, 3rd Edition, 2015.
3. George B. Thomas & Ross L. Finney, "Calculus and Analytic Geometry", Addison-Wesley, 9th Edition, 1995.

22MT105 CALCULUS AND ORDINARY DIFFERENTIAL EQUATIONS

Hours Per Week :

L	T	P	SL	C
3	2	0	3	4

PREREQUISITE KNOWLEDGE: Basics of Algebra, Functions, Differentiation and Integration.

COURSE DESCRIPTION AND OBJECTIVES:

This course aims to develop a fundamental understanding of calculus and differential equations, focusing on their applications in engineering and science. Students will explore single-variable and multi-variable calculus, integral calculus and various techniques for solving ordinary differential equations (ODEs). The objective is to equip students with analytical skills and problem-solving techniques that are essential for real-world applications.

MODULE-1

UNIT-1

18L+12T+0P+18SL=48 Hours

DIFFERENTIAL CALCULUS (FUNCTIONS OF ONE VARIABLE):

Mean value theorems and applications, Taylor's and Maclaurin's series expansion with remainders, Indeterminate forms, Concavity and convexity of a curve, Points of inflection, Curve sketching.

UNIT-2

INTEGRAL CALCULUS:

Integrations as the limit of a sum, Fundamental theorem of integral calculus, Mean value theorems, Reduction formulae, Rectification, Improper integrals, Tests of convergence (Only statements).

PRACTICES:

- Verify and interpret the Mean Value Theorem.
- Expand functions using Taylor & Maclaurin series and analyse errors.
- Analyse concavity and classify points of inflection.
- Apply the fundamental theorem of calculus to compute definite integrals.

MODULE-2

UNIT-1

27L+18T+0P+27SL=72 Hours

MULTIPLE INTEGRALS:

Double and triple integrals, Change of order of integration, Change of variables - Jacobians of Transformations.

Applications: Computations of areas and volumes, Center of mass and centroid, Moment of inertia.

UNIT-2

FIRST ORDER ORDINARY DIFFERENTIAL EQUATIONS:

Introduction, Order and degree, Formation of ODE from a given one-parameter family of curves, Solutions: Variable separable method, homogeneous, equation reducible to variable separable type, linear and Bernoulli's equations.

Applications: Newton's law of cooling, Natural growth and decay.

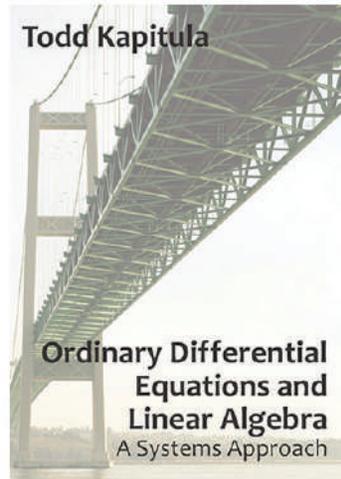


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SKILLS:

- ✓ Understanding function behaviour using calculus principles.
- ✓ Evaluating integrals and applying reduction formulas.
- ✓ Solving multiple integrals with variable changes and transformations.
- ✓ Mastering techniques for solving ODEs and applying them in scientific contexts.

UNIT-3**SECOND ORDER ORDINARY DIFFERENTIAL EQUATIONS:**

Homogeneous and non-homogeneous equations, Complementary functions, Particular integrals, Solution with constant equations: method of undetermined coefficients, variation of parameters.

PRACTICES:

- Solve simple first-order ODEs using separation of variables.
- Evaluate the area under a curve using definite integrals.
- Solve a real-world problem by computing the volume of a solid using triple integrals with appropriate limits.
- Compare and contrast the use of Cartesian vs. polar coordinates in evaluating a given double integral.
- Apply ODEs to Newton's Law of Cooling and natural growth/decay problems.
- Solve circular motion problems using *Āryabhaṭa's Bhūgola-Nyāya* (Rotating Earth Principle) and compare with modern calculus. Understand angular speed and how fast things change.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply calculus concepts in problem-solving	Apply	1, 2, 5
2	Analyze the behavior of functions and integrals	Analyze	1, 2, 6
3	Apply multiple integrals and transformations	Apply	1, 4, 5
4	Evaluate solutions of ODEs	Evaluate	1, 4, 10
5	Create solutions for real-world applications	Create	1, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXT BOOKS:**

1. Erwin Kreyszig, "Advanced Engineering Mathematics", Wiley, 10th Edition, 2011.
2. Kanti B. Datta, Varma, P. Sekhar, "Calculus, Linear Algebra and Ordinary Differential Equations", Cengage Learning, 1st Edition, 2024.

REFERENCE BOOKS:

1. B.S. Grewal, "Higher Engineering Mathematics", Khanna Publishers, Latest Edition.
2. S.L. Ross, "Differential Equations for Engineers", New Age International Publishers, Latest Edition.
3. James Stewart, "Calculus", Cengage Learning, 8th Edition, 2015.

22PY101 ENGINEERING PHYSICS

Hours Per Week :

L	T	P	SL	C
3	0	2	3	4

PREREQUISITE KNOWLEDGE: Basics of semiconductors and Quantum mechanics.**COURSE DESCRIPTION AND OBJECTIVES:**

This course ensures commensurable understanding of semiconductors and their potential applications. It enunciates the electron dynamics in solids through the conceptual grasp of principles of quantum mechanics. This embarks perspective outlook on optoelectronic devices and optical fibres in the backdrop of semiconductor physics.

MODULE-1**UNIT-1****18L+0T+12P+18SL = 48 Hours****METALS AND SEMICONDUCTORS:**

Introduction to metals, expression for electrical conductivity, Introduction to semiconductors-intrinsic, n-type and p-type semiconductors. Electrical conductivity of semiconductors for intrinsic and extrinsic. Hall effect- applications. (*Concept of Panchabhuta-Five Elements*)

UNIT-2

Introduction to Quantum Mechanics, Dual nature of radiation, de Broglie's concept of matter waves, Uncertainty principle, Schrödinger's time-independent wave equation, Particle confined in a one-dimensional infinite potential well, quantum dots; finite potential well- Quantum Tunnelling: Scanning tunnelling microscope and tunnelling diode (qualitative in view of quantum tunnelling).

Kanada's atomic theory (paramanu)

PRACTICES:

- Determination of Energy Band gap of p-n junction diode.
- Hall Effect - Determination of Hall coefficient.
- Photoelectric Effect-Determination of Planck's constant.
- To study the variations of thermo emf of a copper-constantan thermo-couple with temperature (Seebeck effect).
- Demonstration of tunnelling effect in tunnel diode.

MODULE-2**UNIT-1****27L+0T+18P+27SL = 72 Hours**

Quantum free electron theory, Fermi-Dirac distribution, electronic specific heat of solids, Density of states (qualitative), success and failures of quantum free electron theory of solids. E-K diagram- classification of materials based on bands in solids, Fermi level in semiconductors- intrinsic and extrinsic.

UNIT-2

p-n junction diode- forward and reverse bias conditions; Solar cell-construction-working-characteristics-applications. Direct and indirect bandgap semiconductors-LED-construction-working-characteristics-applications. Photodiode -construction-working-characteristics- applications. Tunnelling diode.

UNIT-3

Introduction to lasers- difference between normal light and laser light: characteristics of laser light; stimulated absorption, spontaneous and stimulated emission; population inversion, pumping; optical resonator-lasing mechanism; Diode laser- construction-working and applications- Optical fibre communications.

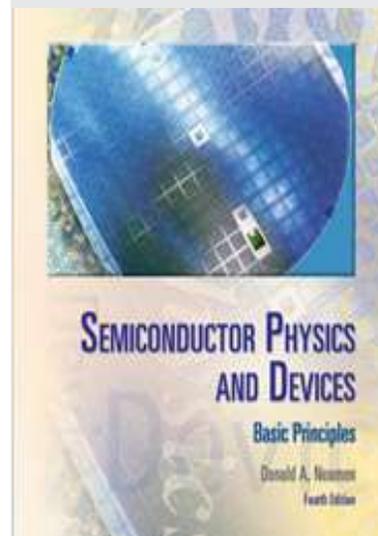


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SKILLS:

- ✓ Apply the quantum laws to understand the electron dynamics of solids.
- ✓ Identification of semiconductors for optoelectronic devices.
- ✓ Realizing the importance of laser for industrial and commercial applications.

PRACTICES:

- Study the characteristics of diode.
- Determination of efficiency and Fill factor of a solar cell.
- Determine the efficiency and fill factor of solar cells in Parallel and series combinations.
- Study the V-I characteristics of LED.
- Optical fibre – Determination of Numerical aperture – Acceptance angle.
- Determination of attenuation in Optical fiber.
- Laser - Determination of wavelength.
- Determination of the slit width from Fraunhofer diffraction pattern using LASER beam.
- Demonstration of monochromatic nature of laser light comparing with ordinary light by the principle of dispersion by using Prism.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Comprehend the nature of metals and semiconductors under different conditions.	Apply	1,2,3,4,9,10,11
2	Apply the principles of quantum mechanics to unravel the latest technical developments.	Apply	1,2,3,4,9,10
3	Categorize the solids based on band theory.	Analyse	1,2,3,4,11
4	Appraise the significance of P-n junction diodes in opto-electronic devices.	Evaluate	1,2,3,4,9,10,11
5	Recognize the versatility of Lasers to realize their applications in latest technical developments.	Apply	1,2,3,4,5,9,10,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**ACTIVITIES:**

- P Type and N Type-Hall Effect.
- Study the temperature dependence of resistance for the given material.
- solar Cell-Series and Parallel.

TEXT BOOKS:

1. M. N. Avadhanulu, "Engineering Physics", S. Chand publications 2010.
2. Donald A. Neamen, "Semiconductor Physics and Devices: Basic principle", 4th edition, McGraw-Hill, New York, 2012.

REFERENCE BOOKS:

1. D. Halliday, R. Resnick and J. Walker, "Fundamentals of Physics", 6th edition, John Wiley and Sons, New York, 2001.
2. M. N. Avadhanulu, "Engineering Physics", S. Chand publications 2010.
3. Charles Kittel, "Introduction to solid state physics", 7th edition, Wiley, Delhi, 2007.
4. David J. Griffiths, "Introduction to Electrodynamics", 3rd edition, Prentice Hall of India, New Delhi, 2012.
5. Ashcroft and Mermin, "Solid State Physics", International student edition, 2008.

22CT102 ENGINEERING CHEMISTRY

Hours Per Week :

L	T	P	SL	C
3	0	2	3	4

PREREQUISITE KNOWLEDGE: Concept of bonding, chemical reactions and electrochemical cell.

COURSE DESCRIPTION AND OBJECTIVES:

The course aims to cover the importance of chemistry and its applications in engineering disciplines particularly focusing on developing new engineering materials (such as polymers, nanomaterials etc.) and understanding their property for scientific and engineering applications. In addition, the students are also expected to acquire knowledge on electrochemistry and construction of batteries and fuel cells.

MODULE-1**UNIT-1****18L+0T+12P+18SL = 48 Hours****CHEMICAL BONDING & STRUCTURE:**

Introduction to Chemistry - Chemical bonding, VSEPR and VBT theory; Bond fissions, Introduction to reactive intermediates (carbanion, carbocation and free radical).

UNIT -2**INTRODUCTION TO MATERIALS AND ELECTROCHEMISTRY:**

Introduction to materials, Type of materials: Polymers-Introduction and Classification, Nanomaterials-Metal and Carbon nanomaterials, Semiconductors – Introduction. Redox reactions, Electrode potential, EMF of an electrochemical cell.

PRACTICES:

- Determination of Fe (II) by Dichrometry method.
- Determination of strength of Weak acid by pH-method.
- Determination of strength of acid by conductometry.
- Synthesis of Phenol-Formaldehyde resin.
- Synthesis of Urea-Formaldehyde resin.

MODULE-2**UNIT-1****27L+0T+18P+27SL = 72 Hours****POLYMERS:**

Types of Polymerizations, Preparation, properties, mechanism (free-radical) and applications of PE, Nylon-6,6; Conducting polymers: Introduction, Classification and Mechanism of conduction in Poly-acetylene, Applications. Introduction to Biodegradable polymers.

UNIT-2**ELECTROCHEMICAL ENERGY SYSTEMS:**

Introduction - **Agastya Samhitā** (Agastya battery), Classification of batteries (primary and secondary). Construction, working and applications of Lead-acid and Li-ion batteries. Fuel Cells-Classification, Construction, working and applications of H₂O₂.

UNIT-3**MATERIALS CHEMISTRY:**

Engineering Materials: Refractories - classification, refractoriness RUL, Chemical & Thermal stability; Lubricants – classification, viscosity, viscosity index, flash and fire points, cloud and pour points.

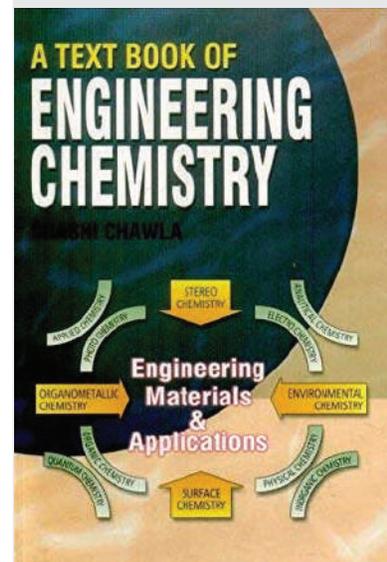


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SKILLS:

- ✓ Synthesize various polymers.
- ✓ Synthesize nanomaterials.
- ✓ Identify the properties of different industrially relevant engineering materials.
- ✓ Understand the different components of an electrochemical cell.
- ✓ Design electrochemical cell such as battery.
- ✓ Identify the types of energy conversion/storage systems.

Carbon based Nanomaterials: Carbon nanotubes and graphene's –Synthesis, properties and applications.
Electronic memory devices: Introduction, organic semiconductors for memory devices: p-type semiconductor-pentacene, n-type-semiconductor perfluoropentacene; Introduction to organic memory devices.

PRACTICES:

- Preparation of Nylon-6,6.
- Determination of Strength of an acid in Pb-Acid battery.
- Potentiometer - determination of redox potentials and EMFs.
- Determination of viscosity of oil (Biodiesel, castor oil and coconut oil).
- Purity of lubricant- Saponification and neutralization number.
- Synthesis of magnetic Iron oxide nanoparticles.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Understand chemical bonding and predicts the molecular geometry and reactivity using bonding VSEPR and VB theories.	Apply	1, 2, 3, 4, 5,8,10,11
2	Apply concepts of materials and electrochemistry to analyse the properties of polymers, nanomaterials, semiconductors, and redox systems.	Apply	1, 2, 3, 4, 5, 8, 9, 10, 11
3	Evaluate polymerization methods and mechanisms to assess the properties and applications of PE, Nylon-6,6, conducting, and biodegradable polymers.	Evaluate	1, 2, 3, 4, 5, 6, 7, 10
4	Analyze the classification, construction, and working principles of electrochemical and fuel cells, and examine their applications in energy storage and conversion.	Analyze	1, 2, 3, 4, 5, 7, 9, 10, 11
5	Apply the concepts of refractories, lubricants, carbon-based nanomaterials, and organic memory devices, and evaluate their properties and applications in engineering.	Apply	1, 2, 3, 4, 5, 6, 7, 9, 10

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXT BOOKS:**

1. S. Chawala, "A Textbook of Engineering Chemistry Engineering Materials and Applications", Dhanpat Rai Publications, 3rd Edition, 2015.
2. K. S. Maheswaramma and M. Chugh, "Engineering Chemistry", Pearson, 1st Edition, 2015.

REFERENCE BOOKS:

1. V.R. Gowariker, N. V. Viswanathan, Jayadev, Sreedhar, "Polymer Science", New age Int. Publishers, 4th Edition, 2021
2. Kirby W. Beard, "Linden's Handbook of Batteries", Fifth Edition, McGraw-Hill, 2019.
3. MaliniS, K.S. Anantha Raju, "Chemistry of Engineering materials", CBS publishers Pvt. Ltd., 2022
4. T. Pradeep, "Nano: The Essentials; Understanding of Nano Science and Technology" Tata McGraw-Hill, New Delhi, 2012.
5. Takatoshi Tsujimura, "OLED Display Fundamentals and Applications", Wiley-Blackwell, 2012.

22EE101 BASICS OF ELECTRICAL AND ELECTRONICS ENGINEERING

Hours Per Week :

L	T	P	SL	C
2	0	2	2	3

PREREQUISITE KNOWLEDGE: Basics of Physics.

COURSE DESCRIPTION AND OBJECTIVES:

This course covers fundamental concepts of electrical and electronic circuits, semiconductor devices, and electrical machines. Topics include circuit analysis, AC and DC circuits, magnetic circuits, rectifiers, voltage regulators, and electrical machines like transformers and motors. Hands-on experiments reinforce theoretical concepts for real-world engineering applications.

MODULE-1

UNIT-1

12L+0T+12P+12SL = 36 Hours

FUNDAMENTALS OF ELECTRIC AND MAGNETIC CIRCUITS:

Circuit Elements and Laws- Types of circuit components and Sources, ohms law, KVL and KCL, series Parallel circuits, Comparison of DC and AC sources, Characteristics of AC waveform, Response of Resistor, Inductor and Capacitor for AC voltage.

Magnetic circuits- Ohm's law in Magnetic circuit (Magneto motive force, Reluctance and Flux), Analogy of Electrical and Magnetic circuits, Faraday's Law of Electromagnetism, Self and mutual inductances.

UNIT-2

SEMICONDUCTOR DEVICES:

Classification of semiconductors, Formation of PN Junction, Avalanche and Zener breakdown of diode, PN Junction Diode, Zener Diode and BJT-operation and their V-I characteristics, Piecewise linear model of a Diode.

PRACTICES:

- Verification of Ohm's law.
- Verification of Kirchhoff's current law.
- Verification of Kirchhoff's voltage law.
- Determination of R.M.S. Values of sinusoidal waveform.
- Obtain the V-I characteristics of Diode.
- Obtain the V-I characteristics of Zener diode.

MODULE-2

UNIT- 1

18L+0T+18P+18SL = 54 Hours

ANALYSIS OF ELECTRICAL CIRCUITS:

Mesh and nodal analysis of resistive circuits with DC source. Response of single- phase ac circuits with RL, RC, RLC loads, Resonant circuits. Introduction to three phase system, Relation between phase and line quantities in star and delta connected systems.

UNIT- 2

ELECTRICAL MACHINES:

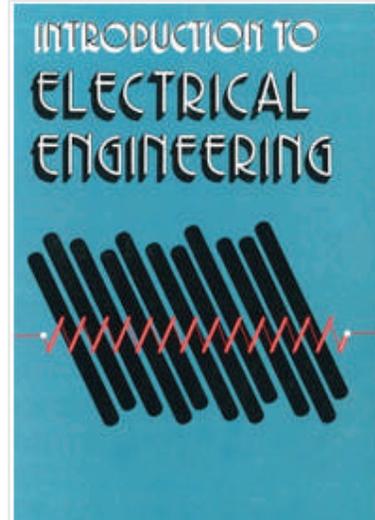


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SKILLS:

- ✓ Distinguish between linear and nonlinear elements by looking at VI characteristics.
- ✓ Develop a simple loop generator.
- ✓ Design a voltage regulator using Zener diode.
- ✓ Design a half wave rectifier using PN junction diode.
- ✓ Design a full wave rectifier using PN junction diodes.

DC MACHINES: Construction of DC Machine, DC Generator- working principle, EMF equation, DC Motor-Working principle and Torque equation.

AC MACHINES: Transformer- Construction, Operating Principle, and EMF Equation.

Three Phase Induction motor- Construction, Working Principle, and Torque vs. Slip Characteristic.

UNIT-3**ANALYSIS OF ELECTRONIC CIRCUITS:**

Half Wave Rectifier- Operation, Efficiency, Ripple Factor, and Peak Inverse Voltage (PIV); Full Wave Rectifiers- Types, Operation, Efficiency, Ripple Factor, and PIV; Zener Diode as a Voltage Regulator.

PRACTICES:

- Transformation ratio of a single phase transformer at different loads.
- Measurement of Energy in single phase resistive load circuit.
- Measurement of Power in single phase resistive load circuit
- Determination of impedance in complex AC circuits.
- Verification of line and phase quantities in a balanced three phase system

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Analyze the resistive circuits with independent sources and find its solution.	Analyze	1,2,6,9
2	Solve the AC (single and three phase) and DC circuits using different methods.	Apply	1,2,9
3	Apply the concepts of electromagnetism for its applications.	Apply	1,2,3,9
4	Examine the different electrical equipment.	Evaluate	1,2,9
5	Acquire the knowledge of semiconductor devices to create circuits.	Create	1,2,3,9

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS):**TEXTBOOK:**

1. M Naidu and S. Kamakshiah, "Introduction to Electrical Engineering", Tata McGraw-Hill Edition, 2017.

REFERENCE BOOKS:

1. A.K. Thereja and B.L. Thereja, "Electrical Technology", Vol.-II, S. Chand & Co., Publications, 2020.
2. V. K. Mehta, "Principles of Electrical Engineering and Electronics", S. Chand & Co., Publications, New Delhi, 2019.
3. D.P. Kothari, "Basic Electrical and Electronics Engineering", TMH, New Delhi, 2017.

22ME101 ENGINEERING DRAWING

Hours Per Week :

L	T	P	SL	C
2	0	2	2	3

PREREQUISITE KNOWLEDGE: Basics of Geometry.**COURSE DESCRIPTION AND OBJECTIVES:**

This course provides a foundational understanding of engineering drawing, focusing on basic projections, dimensioning, and reading technical drawings relevant across various engineering disciplines. The objective is to equip learners with essential skills to visualize, interpret, and communicate design ideas effectively using standard drawing practices.

MODULE-1**UNIT-1****12L+0T+12P+12SL = 36 Hours****GEOMETRICAL CONSTRUCTIONS AND CONICAL CURVES:**

Introduction: Lettering and Dimensioning, Types of Lines.

Geometrical Constructions: Regular polygons using angle, ARC and general methods. Conical

Curves: Construction of ellipse, parabola and hyperbola by using eccentricity method.

Śulba Sūtras (Vedic Geometry)**UNIT-2****PROJECTION OF POINTS AND STRAIGHT LINES:**

Introduction: Reference planes, importance of reference lines and planes; Principles of projection.

Projection of Points: Projection of points located in any of the four quadrants.

Projection of Straight Lines: Projection of straight lines - parallel to both the reference planes, parallel to the one plane and inclined to other plane, parallel to one plane and perpendicular to other plane.

PRACTICES:

- A road roller covers 'x' kilometres distance in one day & the roller completed 'N' revolutions in a minute. By using the above information, inscribe a regular hexagon and pentagon in a circle of diameter, D. Where 'D' is considered as the diameter of the road roller. Also evaluate the length of each side of the regular hexagon and pentagon.
- A cow is tethered in the middle of a field which is in the form of circular shape and suppose that cow grazes 'x' square meters in a day. By using the above information, inscribe regular hexagon and pentagon in a circle of diameter 'D'.
- Two oranges on a tree are respectively x m and y m above the ground, and p m and q m from a r m thick wall, but on the opposite sides of it. The distance between the oranges, measured along the ground and parallel to the wall is 'L' m. (a) Determine the real distance between the oranges and the angle of inclination of the line joining the oranges with the ground and also with the wall.
- A room measures 'x' m long, 'y' m wide and 'z' m height. Assume ($x > y > z$). An electric bulb hangs in the centre of the ceiling and 'p' m below it. A thin straight wire connects the bulb to a switch kept in one of the corners of the room and 'r' m above the floor. Draw the projections.
- On lighting a rocket cracker, it gets projected in a parabolic path and reaches a maximum height of 'x' m when it is 'y' m away from the point of projection. Finally, it reaches the ground 'z' m away from the starting point. Find the angle of projection.
- Two pegs fixed on a wall are 'x' meters apart. The distance between the pegs measured parallel to the floor is 'y' meters. If one peg is 'z' meters above the floor. Consider ($x > y > z$) & assume suitable scales. Design the height of the second peg and the inclination of the line joining the two pegs with the floor. Develop the projections.

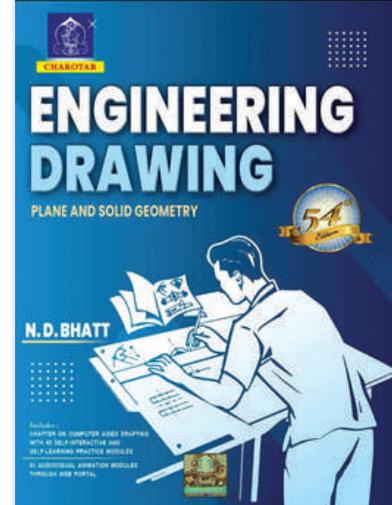


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SKILLS:

- ✓ Convert isometric views of objects into orthographic views and vice versa.
- ✓ Visualize the shape of the 3D components.
- ✓ Create pictorial views by using AutoCAD.
- ✓ Understand projections by visualization.

MODULE-2**UNIT-1****18L+0T+18P+18SL = 54 hours****PROJECTIONS OF PLANES:**

Regular planes perpendicular to one reference plane and inclined to the other reference plane.

UNIT-2**PROJECTIONS OF SOLIDS:**

Axis parallel to one reference plane and inclined to other plane - prisms, pyramids.

UNIT-3**CONVERSION OF ISOMETRIC PROJECTIONS TO ORTHOGRAPHIC PROJECTIONS:**

Conversion of isometric views of geometrical shapes, and simple orthographic views.

PRACTICES:

- A plate having shape of an isosceles triangle has base 'x' mm long and altitude 'y' mm. It is so placed that in the front view it is seen as an equilateral triangle of 'x' mm sides and one side inclined at an angle 'θ' degrees to the reference line. Develop its front view and top view.
- Prepare the top-view (plan) of a class-room/lab, home (Drawing Room/Bedroom/ Study Room, Kitchen) along with suitable dimensions.
- A lighting point in a ceiling design is 0 mm above the HP and 50 mm in front of the VP (i.e., lies exactly on HP). Draw views and mark the location. Explain what it means physically.
- A sensor mounted on a panel lies 22 mm below the panel surface (HP) and 60 mm in front of the operator (VP). Draw the reference line and mark views. Justify point placement.
- You are given an isometric view of an L-shaped bracket with holes and steps. Draw the orthographic views (Front, Top, and Right Side views).

ACTIVITIES:

- Developing the following solids with the help of cardboard/ thick paper, cube, cuboid prisms & pyramids (triangular, square, pentagonal, and hexagonal) right circular cylinder and cone.
- Design a Bolt and nut assembly for the given dimensions.
- Design a Connecting rod of IC engine for the given dimensions.
- Design a I.C Engine Piston with piston rings for the given dimensions.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Creating and interpreting technical drawings.	Apply	1,3,5
2	Apply the drawing skills in representing various geometrical features.	Apply	1,3,5
3	Develop orthographic projections and isometric views of various objects using AutoCAD.	Analyse	1,3,5
4	Sketch simple objects and their pictorial views using AutoCAD.	Analyse	1,3,5

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOK:**

1. N D Bhatt, "Engineering Drawing", 54th edition, Charotar Publication, 2023.

REFERENCE BOOKS:

1. S. N. Lal, "Engineering Drawing with an Introduction to Auto CAD", 1st edition, Cengage, 2017.
2. K L Narayana, "Engineering drawing", 2nd edition, SciTech Publications, 2014.

22CS101 PROGRAMMING IN C

Hours Per Week :

L	T	P	SL	C
2	0	4	2	4

PREREQUISITE KNOWLEDGE: Fundamentals of Problem Solving.**COURSE DESCRIPTION AND OBJECTIVES:**

This course is aimed to impart knowledge on basic concepts of C programming language and problem solving through programming. It covers basic structure of C program, data types, operators, decision making statements, loops, functions, strings, pointers, structures and unions. At the end of this course, students will be able to design, implement, test and debug complex problems using features of C.

MODULE-1**UNIT-1****12L+0T+24P +12SL=48 Hours****INTRODUCTION TO ALGORITHMS AND PROGRAMMING LANGUAGES:**

Introduction to Algorithms: Introduction to computational thinking – Problem solving with algorithms and flowcharts - Introduction to C: Structure of a C program - pre-processor statement) inline comments, variable declaration statements, executable statements; C Tokens - C character set, identifiers and keywords, type qualifiers, type modifiers, variables, constants, punctuations and operators.

Data Types and Operators: Basic data types; Formatted I/O; Reading and writing characters; Operators - assignment, arithmetic, relational, logical, bitwise, ternary, address, indirection, sizeof, dot, arrow, parentheses operators; Expressions - operator precedence, associative rules.

Control Statements: Introduction to category of control statements; Conditional branching statements - if, if- else, nested-if, if – else ladder, switch case;

Iterative statements - for, while, do - while, nested loops; Jump statements - break, jump, goto and continue.

Algorithmic logic in Panini's Ashtadhyayi; problem-solving in Indian logic (**Nyaya Shastra**), Structured numerical systems – Vedic mathematics and early binary concepts

UNIT-2**FUNCTIONS & POINTERS:**

User-defined functions: Function declaration - definition, header of a function, body of a function, function invocation; Call by value, Call by address. Recursion; Library Functions; Storage classes; Scope of a variable.

Pointers: Declaration, Initialization, Multiple indirection, Pointer arithmetic.

Recursive hymns (**Rigveda**), modular constructs in Shastra classification, Concepts of abstraction and references in Indian epistemology (**Pramana**).

MODULE-2**UNIT-1****18L+0T+36P +18SL=72 Hours****ARRAYS:**

Arrays: Introduction; Types of arrays; Single dimensional array - declaration, initialization, usage, reading, writing, accessing, memory representation, operations; Multidimensional arrays. Passing arrays to functions; Relationship between arrays and pointers, scaling up - array of arrays, array of pointers, pointer to a pointer and pointer to an array; Dynamic memory allocation functions – Creating arrays dynamically and performing operations on them.

Representation of multidimensional data in ancient Indian astronomy and calendar systems Granularity and scalability in system design found in traditional architecture (e.g., **Vastu**).

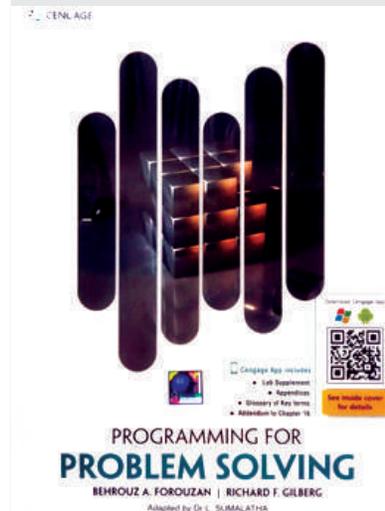


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SKILLS:

- ✓ Analysis of the problem to be solved.
- ✓ Select static or dynamic data structures for a given problem and manipulation of data items.
- ✓ Develop C programs that are understandable, debuggable, maintainable and more likely to work correctly in the first attempt.

UNIT-2**STRINGS:**

Strings: Character array, reading strings from the standard input device, displaying strings on the standard output device, Importance of terminating a string, Standard string library functions. Preservation and transmission of Sanskrit and Tamil texts using structured phonetic systems.

UNIT-3**STRUCTURES, UNIONS:**

Structures: Defining a structure, declaring structure variable, Operations on structures, Pointers to structure - declaring pointer to a structure, accessing structure members using pointer; Array of structures, Nested structures, passing structures to functions - passing each member of a structure as a separate argument, passing structure variable by value, passing structure variable by reference/ address; Typedef and structures.

Unions: Defining a union - declaring union variable, operations on union.

Classification of knowledge in Indian systems – Charaka Samhita, Manuscripts, Palm-leaf layouts, Group representation in indigenous knowledge frameworks – e.g., Ayurveda Tridosha classification.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Explain algorithmic problem-solving, flowchart design, and fundamental programming constructs in C.	Apply	1, 2
2	Analyze and implement various control structures (conditional, iterative, and jump statements) for effective decision-making in programs.	Analyze	2, 3, 4
3	Implement modular programming by designing user-defined functions and utilize recursion effectively for problem-solving. Apply array concepts, including single and multi-dimensional arrays, dynamic memory allocation, and pointer-array relationships in programming.	Apply	1, 2, 3, 4, 5
4	Utilize string handling techniques and standard string library functions to solve text-processing problems effectively.	Evaluate	1, 2, 3, 5
5	Design, implement, and analyze structured data types using structures and unions for efficient handling of complex data.	Create	1, 2, 3, 5

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOKS:**

1. Behrouz A. Forouzan, Richard F. Gilberg, "Programming for Problem Solving", 1st edition, Cengage publications, 2019.
2. Ajay Mittal, "Programming in C - A Practical Approach", 1st edition, Pearson Education, India, 2010.

REFERENCE BOOKS:

1. R.G. Dromey, "How to Solve it by Computer", Prentice-Hall International Series in Computer Science, USA.
2. Reema Thareja, "Computer Fundamentals and Programming in C", 1st edition, Oxford University Press, India, 2013.
3. Herbert Schildt, "C: The Complete Reference", 4th edition, Tata McGraw-Hill, 2017.
4. Byron S Gottfried, "Programming with C", 4th edition, Tata McGraw-Hill, 2018.

22EN103 ENGLISH PROFICIENCY AND COMMUNICATION SKILLS

Hours Per Week :

L	T	P	SL	C
0	0	2	0	1

PREREQUISITE KNOWLEDGE: Basics of grammar, Read and understand for global context, Cultural sensitivity and Basic writing skills.

COURSE DESCRIPTION AND OBJECTIVES:

English Proficiency and Communication Skills seeks to develop the students' abilities in listening, speaking, reading, writing and grammar. The course will provide students an exposure on a wide range of language use in everyday situations. It will make the students to equip with functional English and make them use it confidently in their professional and social contexts. Finally, students will strengthen their listening, speaking, reading, writing skills in English.

MODULE-1

UNIT-1

0L+0T+12P +0SL=12 Hours

MY LIFE AND HOME – MAKING CHOICES – HAVING FUN:

Listening: Understanding short monologues or dialogues and choose the correct visual.

Speaking: Self-introduction, agreeing, disagreeing, making decision, cultural matters in a limited way.

Reading: Understanding main message, factual information global meaning, specific information and paraphrasing.

Writing: Developing hints-based mail, Writing short messages/paragraphs.

Vocabulary: Discerning use of right word suiting the context, B1 Preliminary word list.

Grammar: Frequency Adverbs, State Verbs and Prepositions. In Indian philosophies like **Vedanta**, **Sankhya**, and **Yoga**, the concept of cyclical time is fundamental. the **Atman** (soul) is eternal and always present. In Indian agriculture, astrology, and spirituality, the regular appearance of seasons or celestial events often translates to frequency. (Life on Earth, governed by cycles of karma and rebirth, reflects actions that happen at varying intervals).

UNIT-2

ON HOLIDAY – DIFFERENT FEELINGS – THAT'S ENTERTAINMENT:

Listening: Understand straightforward instructions or public announcements.

Speaking: Describing people, things and places in a photograph, making suggestions, discussing plans.

Reading: Longer text for detailed comprehension, gist and inference.

Writing: Developing notes and responding to penfriends or 'e-pals'.

Vocabulary/Grammar – Comparatives and Superlatives, Gradable and non-gradable adjectives, Cloze tests.

PRACTICES:

- Developing hints based mail.
- Writing short messages.
- Writing paragraphs.
- Expressing opinions and cultural matters.

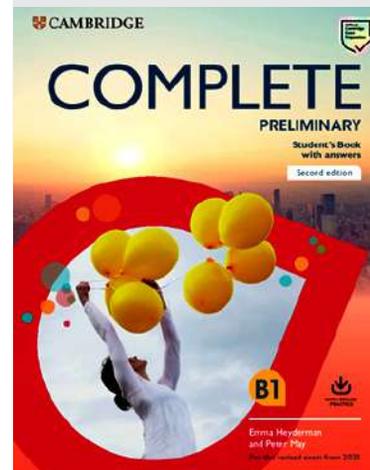


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SKILLS:

- ✓ Use of appropriate grammar and vocabulary with syntactic patterns in short texts.
- ✓ Read and extract the main message, global meaning, specific information, detailed comprehension, understanding of attitude, opinion and writer purpose and inference.
- ✓ Listen to understand key information, specific information, gist and detailed meaning and to interpret meaning.
- ✓ Understand questions and make appropriate responses and talk freely on everyday topic.

- Understanding short monologues.
- Understanding straightforward instructions and public announcements.
- Describing people, things and places in a photograph.

MODULE-2**UNIT-1****0L+0T+18P +0SL=18 Hours****GETTING AROUND – INFLUENCES:****Listening:** Discussion activities and listening to understand the gist of each short dialogue.**Speaking:** Snap Talks, Make and respond to suggestions, discuss alternatives and negotiate agreement.**Reading:** Reading for understanding coherence of the text and drawing inferences.**Writing:** Reading an announcement from a magazine or website for preparing an article.**Vocabulary / Grammar:** Punctuation, Prepositions, (Mount Meru, in Hindu, Buddhist, and Jain cosmology, is considered the center of the universe, and many deities are believed to reside on its peaks). Phrasal Verbs, B1 Preliminary word list.**UNIT-2****STAY FIT AND HEALTHY – LOOKS AMAZING!****Listening:** An interview for a detailed understanding of meaning and to identify attitudes and opinions.**Speaking:** Discuss likes, dislikes, experiences, opinions, habits, etc.**Reading:** Content, Communicative Achievement, Organisation and Language.**Writing:** Developing a story with clear links to the given opening sentence.**Vocabulary / Grammar:** Modals, Conditionals, Indian philosophy, particularly in Hinduism, Buddhism, and Jainism, the law of karma is central to understanding the relationship between actions and their consequences. Verb forms (Time and Tense).**UNIT-3****THE NATURAL WORLD – EXPRESS YOURSELF!****Listening:** Listening for specific purpose, listening for identifying the situation.**Speaking:** Discussing sports, discussing everyday objects in photos, talking about habits and routines.**Reading:** Reading to identifying text purpose, Identifying opinion and attitude.**Writing:** Reported speech, using range of tenses.**Vocabulary / Grammar:** Collocations, Adjective Prefixes and Suffixes.**PRACTICES:**

- Listening to understand the gist of each short dialogue.
- Listening to an interview for a detailed understanding of meaning and to identify attitudes and opinions.
- Preparing an article.
- Discuss for alternatives and negotiate agreement.
- Discussion on likes, dislikes, experiences, opinions, habits, etc.

ACTIVITIES:

- Snap talks.
- Making and responding suggestions.
- Discussion on likes, dislikes, experiences, opinions, habits, etc.
- Description of people, things and places in a photograph.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	apply to read and grasp content on a range of topics/texts related to their everyday life like notifications, advertisements, travel brochures, news reports, articles.	Apply	7, 8, 9, 10, 11
2	apply suitable strategies to achieve comprehension, like listening for main points and checking comprehension using contextual clues etc.	Apply	7, 8, 9, 10, 11
3	demonstrate vocabulary beyond that of the familiar subjects.	Analyze	7, 8, 9, 10, 11
4	show sufficient control of English grammar and sentence variety to coherently organize information at sentence and discourse levels.	Evaluate	7, 8, 9, 10, 11
5	use functional English to communicate and interact effectively in everyday situations.	Create	7, 8, 9, 10, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOK:**

1. Emma Heyderman and Peter May, "Complete Preliminary", Student's Book with Answers, 2nd edition, Cambridge University Press, 2019.

REFERENCE BOOKS:

1. Annette Capel and Rosemary Nixon, "Introduction to PET", Oxford University Press, 2009.
2. Adrian Doff and Craig Thaine, "Empower Pre intermediate", Cambridge University Press, 2015.
3. Louise Hashemi and Barbara Thomas, "Objective PET", Cambridge University Press, 2010.

22CT101 ENVIRONMENTAL STUDIES

Hours Per Week :

L	T	P	SL	C
2	2	0	2	3

PREREQUISITE KNOWLEDGE: General awareness regarding environmental problems and importance of environmental protection.

COURSE DESCRIPTION AND OBJECTIVES:

It is a multidisciplinary subject where we deal with different aspects using a holistic approach. It is evolving to be the education for sustainable and ethical development both at a local and global level. It helps to prepare the next generation and to plan appropriate strategies for addressing environmental issues. It identifies and create solutions that conserve to manage ecosystem and biodiversity and also helps to eliminate pollutants, toxicants to preserve air, water and soil quality. Environmental education recognize impacts of global issues, enhances the public awareness and helps to take decisions towards environmentally responsible actions.

MODULE-1**UNIT-1****12L+12T+0P+12SL=36 Hours****SUSTAINABLE DEVELOPMENT, NATURAL RESOURCES AND ECOSYSTEMS:**

Sustainable Development - Concept and Sustainable Development Goals. Natural Resources- Forest, water, energy, mineral and land resources. Concept of Ecology and Ecosystems, Ecological succession, Population Ecology.

UNIT-2**BIODIVERSITY AND ECOSYSTEM CONSERVATION:**

Biodiversity concept, Biodiversity hot spots, Biodiversity indices (Simpson index and Shannon index) Threats to biodiversity, Biodiversity conservation (in-situ and ex-situ). **Traditional Knowledge** in biodiversity conservation, Ecosystem protection and its maintenance.

PRACTICES:

- Wealth from waste, (development of value-added products from waste materials).
- Biogas production.
- Herbarium sheet preparation.
- Models: wind mills, solar cell, bioenergy, Vertical garden, green building models.
- Preparation of Compost.
- Installation of artificial nests for local bird population.
- On campus plantation programme.
- Disposal of laboratory waste- Individual practice and report writing, lab safety awareness

MODULE-2**UNIT-1****18L+18T+0P+18SL =54 Hours****ENVIRONMENTAL ISSUES AND WASTE MANAGEMENT:**

Emerging local and global environmental issues, Waste Management-Municipal, Industrial. Biomedical, hazardous and radioactive waste management, Waste-water treatment.

UNIT-2**ENVIRONMENTAL HEALTH AND SAFETY:**

Occupational health and hygiene, Toxicity studies (Heavy metal toxicity, Tobacco, Silicosis, Xenobiotics and Carcinogenicity) and its remedy.

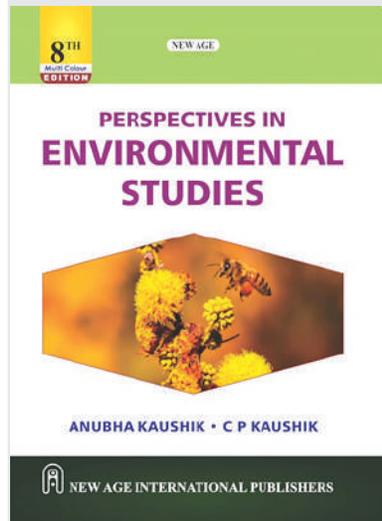
UNIT-3

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ADVANCED TECHNIQUES IN POLLUTION CONTROL:

Pollution control devices -Catalytic converters, Electrostatic precipitators, Scrubbers, Cyclonic separators, Gravitational settling chambers, Carbon capture technology, Water pollution technologies- membrane filtration, bioremediation, Bio manipulation technology.

PRACTICES AND FIELD PROJECT:

- Comparative analysis of water quality metrics to determine whether the water is suitable for irrigation and drinking purposes.
- Survey of flora and fauna in your own remote areas for assessment of local Biodiversity.
- Comparative study of traditional versus modern waste collection systems.
- Study on the effects of household items and detergents on the quality of the water.
- Detailed study of any environmental problem/situation, Identification of factors pertaining to that problem with conclusion.
- Study of agricultural runoff in crop lands of Angalakuduru and Sekuru.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Ability to apply knowledge, research skills and field techniques to protect environment.	Apply	2, 6, 9, 11
2	Examine the impacts of ecosystems, biodiversity and apply conservation strategies to curb the issues for sustainability	Apply	2, 6,9, 11
3	Survey on various waste management approaches and develop innovative solutions to solve the issues in the future	Evaluate	2, 3, 6,11
4	Create and implement useful skills to solve occupational health and environmental issues, ensuring safer work places and healthier communities	Apply	2,3, 6, 11
5	Analyse, design and implementation of sophisticated control system to manage industrial emissions and manage environmental pollutants	Analyse	1,2 3, 6,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOKS:**

1. Anubha Kaushik and C. P. Kaushik, "Perspectives in Environmental Studies", 8th edition, New Age International Publishers, 2024.
2. M. Anji Reddy, "Textbook of Environmental Science and Technology" B. S. Publications, 2023.

REFERENCE BOOKS:

1. B. Joseph, "Environmental Studies Simplified", 3rd edition, Mc Graw Hill Education (India), 2024.
2. John Pichtel, "Waste Management Practices: Municipal, Hazardous, and Industrial", 2nd Edition, Taylor and Francis Books India Pvt. Ltd, 2024.
3. Pankaj Gupta, "Environmental Health and Occupational Safety". 1st Edition, Routledge Taylor and Francis group, 2024.
4. C. S. Rao, "Environmental Pollution Control Engineering", New Age International Publishers, 2021
5. P.D. Sharma, "Ecology and Environment", 13th Edition, Rastogi publication, 2022.
6. Anil Kumar De, "Environmental Chemistry", 10th Edition, New Age International Private Limited, 2022.

22MS101 MANAGEMENT STUDIES

Hours Per Week :

L	T	P	SL	C
2	2	0	2	3

PREREQUISITE KNOWLEDGE: Management Fundamentals, Operations Management, Business Environment.

COURSE DESCRIPTION AND OBJECTIVES:

This course aims to provide foundational knowledge in the science of management by examining classical and modern management theories and their applications in business operations, HR, and marketing. The course equips students with tools to analyse markets, customers, and internal organizational processes, thereby enabling them to develop effective managerial strategies.

MODULE-1

UNIT-1

12L+12T+0P+12SL=36 Hours

INTRODUCTION TO MANAGEMENT:

Concepts of Management and Organization – Nature, Importance and Functions – Evolution of Management Thought: Taylor’s Scientific Management, Fayol’s Principles, Administrative Theory, Mayo’s Experiments. Theories of Motivation: Maslow and Herzberg. Leadership Styles. Corporate Social Responsibility from Indian Perspectives.

UNIT-2

OPERATIONS MANAGEMENT:

Plant Location Principles, Plant Layout Types, Productivity Measures, Project Management – Planning, Scheduling and Controlling, Inventory Control Techniques – EOQ, ABC Analysis, Stores and Purchase Management.

PRACTICES

- Design a management strategy for a Start-up using planning, organizing, leading, controlling.
- Conduct a leadership style analysis comparing crisis vs. stability periods.
- Prepare a CSR initiative aligned with Indian ethics and practices.
- Create a simplified Gantt chart for a semester project schedule.
- Compute EOQ for a sample product with demand, ordering, and holding cost data.
- Simulate inventory classification using ABC analysis for a retail store.
- Demonstrate statistical process control using chart data sets.
- Evaluate functions of management through a case study of a real-life business.

MODULE – II

UNIT-1

18L+18T+0P+18SL=54 Hours

HUMAN RESOURCE MANAGEMENT:

Concepts and Functions of HRM – Manpower Planning – Recruitment & Selection – Training & Development – Wage & Salary Administration – Promotion, Transfer and Separation – Performance Appraisal – Grievance Handling – Welfare Measures – Job Evaluation and Merit Rating, **Ancient Gurukul systems**, mentorship models, values-based leadership.

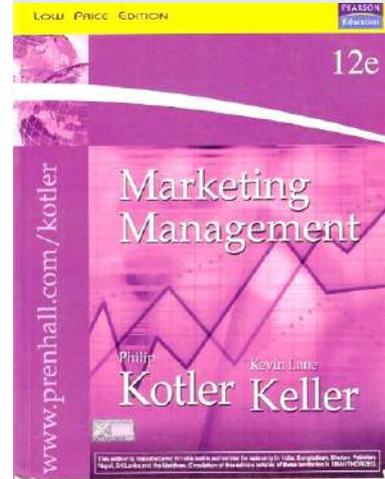


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SKILLS:

- ✓ *Strategic Thinking and Managerial Decision-Making.*
- ✓ *Human Resource Planning and Administration*
- ✓ *Application of Operations and Inventory Techniques.*
- ✓ *Marketing Analysis and Digital Campaign Planning.*
- ✓ *Ethical and Sustainable Business Practices.*

UNIT-2**MARKETING MANAGEMENT:**

Evolution and Functions – Selling vs. Marketing – 4Ps & 7Ps of Marketing – Product Mix & Life Cycle – Price Mix & Pricing Methods – Place Mix & Channels – Promotion Mix Tools – Packaging & Process in Marketing.

UNIT-3**EMERGING TRENDS IN BUSINESS MANAGEMENT:**

Digital Transformation in Business – Role of AI in business, Remote & Hybrid Work Models, Digital Marketing Innovations, FinTech & Digital Payments, E-Commerce & Social Commerce.

PRACTICES:

- Draft a job description and specification for a chosen designation.
- Prepare an HR training calendar for a small business.
- Design a grievance handling mechanism with a workflow.
- Conduct a mock interview and document evaluation criteria.
- Analyze the marketing mix for a consumer product or service.
- Conduct a class debate on: “Is Digital Marketing replacing Traditional Marketing?”
- Analyze an Indian e-commerce platform’s business model (e.g., Flipkart, Nykaa).
- Compare and contrast HR practices across two industry sectors.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Analyze core management principles and classical theories	Analyze	1,2
2	Apply operations management techniques	Apply	1,2,3
3	Evaluate human resource management practices	Evaluate	1,2
4	Evaluate the markets, customers and competition	Evaluate	1,2,3
5	Critically assess emerging trends such as digital transformation	Apply	1,2,3

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOKS:**

1. Kotler Philip & Keller Kevin Lane, Marketing Management, 12th edition, PHI, 2005.
2. Koontz & Weihrich, Essentials of Management, 6th edition, TMH, 2005.
3. Aryasri, Management Science, 4th edition, TMH, 2004.

REFERENCE BOOKS:

1. Stoner, Freeman, Gilbert, Management, 6th edition, Pearson Education, 2018.
2. Thomas N. Duening & John M. Ivancevich, Management: Principles and Guidelines, Biztantra, 2003.

22CS102 PROBLEM SOLVING THROUGH PYTHON

Hours Per Week :

L	T	P	SL	C
2	0	2	2	3

PREREQUISITE KNOWLEDGE: Prior knowledge of any programming language and object-oriented concepts is helpful but not mandatory.

COURSE DESCRIPTION AND OBJECTIVES:

This course offers sufficient knowledge required to understand the fundamental concepts of Python programming language. This course enables students to choose appropriate data structures (lists, dictionaries, tuples, sets, strings) for the given problem. In addition, the students will be able to create reliable, modular and reusable applications using Object- Oriented Programming approaches. At the end they will get an idea of how to access database using python programming, develop web applications, and using web Services using python Programming.

MODULE-1

UNIT-1

12L+0T+12P+12SL=36 Hours

INTRODUCTION:

Introduction to python, Variables, Assignment, Keywords, Built-in functions, Indentation, Comments, Basic data types - integers, float, complex, Boolean, strings; Python program development, running python using REPL shell, Python scripts.

Operators and Expressions: Operators- arithmetic operators, comparison (relational) operators, assignment operators, logical operators, bitwise operators, membership operators, identity operators; Expressions and order of evaluations.

Control Structures: Conditional control structures - if, else if, else; Loop control structures - for, while, for... else, while...else, nested loops, break, continue, pass.

Structured rule-based logic as in *Panini's grammar*; algorithmic thinking in *Nyaya philosophy*.

UNIT-2

PYTHON DATA STRUCTURES AND FUNCTIONS:

Data Structures: Lists, Tuples, Sets, Strings, Dictionary - creation, accessing, basic operators and methods; List comprehensions.

Functions: Defining functions, calling functions, Passing arguments - keyword arguments, default arguments, positional arguments, variable-length arguments; Types of functions- anonymous functions, fruitful function, recursive functions; Scope of the variables- global and local variables, Development of recursive and non-recursive functions.

Recursive and modular thinking in Vedic systems; structured data modeling akin to Ayurveda and traditional knowledge.

MODULE-2

UNIT-1

18L+0T+18P+18SL=54 Hours

MODULES, PACKAGES AND OOPS:

Creating modules, Import Statement, From...Import Statement, Name Spacing, Creating user defined modules.

Standard Modules: sys, math, date, time, os, random and itertools modules.

Packages: Package Initialization, Importing * From a Package, Sub packages.

Modular organization of knowledge in Indian philosophical schools; abstraction in ancient systems like *Arthashastra*.

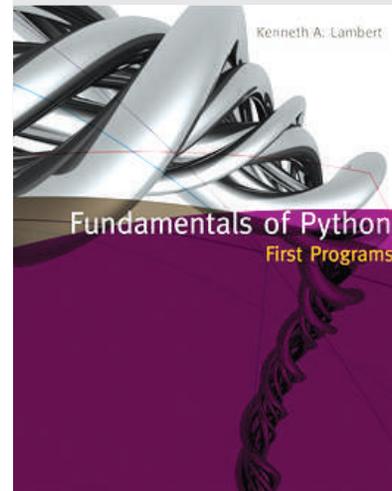


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UNIT 2**OBJECT ORIENTED PROGRAMMING:**

Classes and Objects, Attributes and Methods, Constructors and Destructors- (init and del methods), Encapsulation - bundling of data and methods within a class, promotes data integrity and prevents unauthorized access, use of access modifiers to control access to attributes and methods; Inheritance, Method Overriding, Polymorphism, Abstraction, Class and Instance Variables - Differentiate between class variables (shared among all instances) and instance variables (unique to each instance), Access Modifiers-access modifiers and their role in controlling access to class members.

Operator Overloading: customization of operators for user- defined classes- define methods such as add, sub, mul, etc.

Traditional agricultural methods (Krishi-Parashara), Ayurveda-based healthcare practices.

UNIT-3**ERRORS AND EXCEPTIONS AND FILES:**

Introduction to Exceptions, Handling Exception, Try Except Else and Finally Block, Raising Exceptions. File Processing: Reading and writing files -creating a new file, writing to a file, reading text files, opening and closing files, reading, writing, tell (), seek (), rename ().

Risk assessment in ancient Indian governance (Arthashastra); traditional knowledge documentation and preservation.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Analyze various features of programming language and their application in problem solving in computer programming to write, compile, and debug programs in python language.	Analyze	1,2
2	Make use of different data types to design programs involving decisions, loops, and functions.	Apply	1,2,5
3	Analyze the usage of different data structures for practical and contemporary applications for a given problem.	Analyze	1, 2, 3, 5
4	Choose appropriate programming paradigms, interrupt and handle exceptions using files to propose solution through reusable modules	Apply	1, 2, 3,5
5	Develop applications for a range of problems using object-oriented programming techniques.	Apply	1, 2,3,4,5

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOKS:**

1. Kenneth A. Lambert, "The Fundamentals of Python: First Programs", Cengage Learning, 2011.
2. Mark Lutz, "Learning Python", 5th edition, Orielly Publishers, 2013.
3. Reema Thareja, 'Python Programming using problem solving approach', oxford university press,2017.

REFERENCE BOOKS:

1. Introduction to Computation and Programming Using Python. John V. Guttag, The MIT Press.
2. James Payne, "Beginning Python using Python 2.6 and Python 3", Wrox publishing.
3. Paul Gries, "Practical Programming: An Introduction to Computer Science using Python 3", The Pragmatic Bookshelf, 2nd edition, 4 Oct. 2013.
4. Allen B. Downey, "Think Python", 1st edition, Orielly publishing.

22EN104 TECHNICAL ENGLISH COMMUNICATION

Hours Per Week :

L	T	P	SL	C
1	0	2	1	2

PREREQUISITE KNOWLEDGE: Basic sentence formation, understanding contextual meanings, basic writing skills and moderate fluency in English.

COURSE DESCRIPTION AND OBJECTIVES:

In this course students will read, analyze, and interpret material from technical and general fields, and practice reading, writing, listening and speaking skills to gain exposure and functional English on a variety of contemporary topics. The overall course objective is to provide English for Specific Purposes (ESP) instruction to enhance students' reading, writing, listening and speaking skills through a practice in the language. It will aim to build students' confidence and motivation through exposure to academic skills like Note making/taking, Paraphrasing, Summarizing, Report Writing, Making Presentations etc., so as to generate interest in the language from an ESP perspective. Finally, students are expected through the course to gain key strategies and expression for communicating with professionals and non-specialists.

MODULE-1

UNIT-1

6L+0T+12P+6SL= 24Hours

EFFECTIVE COMMUNICATION: EXPLORING CHANNELS AND METHODS:

Sub-themes: Types of communication, non-verbal communication, communication strategies and Barriers of communication, digital communication tools.

*IKS- Traditional Communication Methods in Ancient India and the *Gurukul system* emphasized face-to-face communication, clarity in speech, and respectful dialogue.

Vocabulary Building: Roots, Prefixes and Suffixes-commonly used 50.

Grammar: Articles and Prepositions.

Reading: Skimming and scanning for information.

Writing: Paragraph Writing, Summarizing.

Listening: Note Making, Note Taking.

Speaking: Introducing One- self.

UNIT- 2

A NEW ERA OF HEALTH CONSCIOUSNESS: IN PURSUIT OF BETTER HEALTH:

Sub-themes: Importance of physical and mental well-being, benefits of healthy lifestyle choices, current health trends.

*IKS- "Traditional Indian Approaches to Health and Well-being"

Vocabulary Building: Homophones and Homonyms (commonly Miss spelt Words).

Grammar: Tenses.

Reading: Reading for specific details – Reasons.

Writing: Process Description.

Listening: Listening for main ideas and supporting details on health topics.

Speaking: Object Description (JAM).

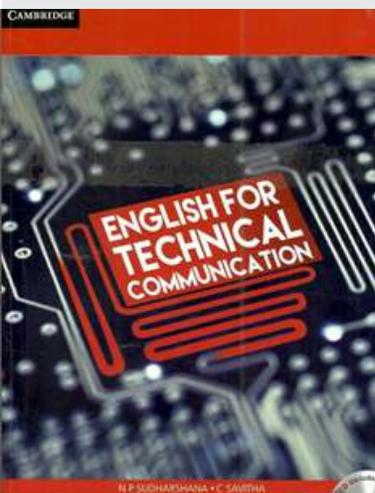


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PRACTICES:

- Note making and Note Taking.
- Summarizing.
- Paragraph Writing.
- Reading Comprehension
- Error Correction and Restructuring.
- Vocabulary building.
- Process Description.
- Tenses.

MODULE-2**UNIT-1****9L+0T+18P+9SL= 36Hours****DISRUPTIVE TECHNOLOGIES: ETHICAL IMPLICATIONS AND FUTURE PROSPECTS:**

Sub-themes: Introduction to artificial intelligence, machine learning, Augmented and Virtual Realities, AI in different sectors, Colonizing the Space and Cloning, ethical implications of AI, future prospects.

Vocabulary Building: Idioms and Phrases

Grammar: Subject-Verb Agreement

Reading: Reading for Tone, intention and Irony for Global understanding

Writing: Paraphrasing, Letter Writing

Listening: Listening for main ideas

Speaking: JAM

UNIT-2**ENTREPRENEURSHIP AND START-UP CULTURE: EMERGING TRENDS:**

Sub-themes: Startup ecosystem, emerging industries, the role of technology in entrepreneurship, global market trends.

Vocabulary Building: Words Confused

Grammar: Active and Passive Voice

Reading: Reading for specific details

Writing: E-mail Etiquette, Data Interpretation, Report Writing

Listening: Note Making from a Long Lecture

Speaking: Group Discussion

UNIT-3**ETHICAL LEADERSHIP: INTEGRATING SOCIAL RESPONSIBILITY AND CORE VALUES:**

Sub-themes: Corporate social responsibility (CSR), ethical business practices, environmental responsibility.

Principles of Dharma and Leadership in Ancient Indian Thought

Vocabulary Building: Homophones-Spellings (commonly Miss Spelt Words).

Grammar: Synthesis – use of coordinating and subordinating Conjunctions.

Reading: Reading for tone, intention and irony.

Writing: Report Writing, Reviews and Social Media Messaging-Etiquette.

Listening: Listening for main ideas and supporting details on health topics.

SKILLS:

- ✓ Apply different sub-skills like skimming, scanning, reading for information, reading for inference etc. to understand different kinds of text.
- ✓ Apply different sub skills like top down, bottom up approaches to listening.
- ✓ Use functional vocabulary relevant to engineering and technology to express ideas lucidly.
- ✓ Use appropriate sentence structure, cohesive devices to construct simple text in regular correspondence like e-mails and letters.

Speaking: Team Presentations**PRACTICES:**

- E-mail writing.
- Letter writing.
- Paraphrasing
- Report writing.
- Process Description.
- Data Interpretation.
- Messaging in Social media.
- Writing Reviews.
- Group Discussion.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply a variety of strategies to interpret and comprehend spoken texts/discourse using contextual clues.	Apply	6, 7, 8, 9, 10, 11
2	Apply appropriate reading strategies to interpret content / material related to engineering and technology domain.	Apply	6, 7, 8, 9, 10, 11
3	Participate in discussions and make short presentations on general and technical topics.	Analyze	6, 7, 8, 9, 10, 11
4	Possess an ability to write clearly on topics related to technology and workplace communication.	Evaluate	6, 7, 8, 9, 10, 11
5	Choose functional language, grammar structures, cohesive devices and skills of organization to express clearly in speaking.	Create	6, 7, 8, 9, 10, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOK:**

1. Tabitha Chekuri & Ravi Perimulla, *INGENUITY: A Course Book on Technical English Communication*, Cengage Learning, 2025.

REFERENCE BOOKS:

1. Balasubramanian T, "A Text book of Phonetics for Indian Students", Orient Longman, New Delhi, 1989.
2. Krishnaswamy, N and Sriraman, T, "Current English for Colleges", Trinity publications, 2016.
3. Ashraf Rizvi M, "Effective Technical Communication", 2nd Edition, McGraw Hill Education, 2017.

22CY101 CYBER SECURITY

Hours Per Week :

L	T	P	SL	C
0	1	1	0	1

PREREQUISITE KNOWLEDGE: Basic familiarity with computers, internet usage, mobile apps, and fundamental digital communication concepts.

COURSE DESCRIPTION AND OBJECTIVES:

This course offers a broad overview of cybersecurity, designed for students from all engineering disciplines. It introduces the basic concepts of security, threats, and preventive practices in the digital world. Students will learn cyber hygiene, common attack vectors, legal and ethical considerations, and safe digital practices applicable to personal and professional environments.

MODULE-1

UNIT-1

0L+6T+6P+0SL = 12 Hours

INTRODUCTION TO CYBERSECURITY:

Cybersecurity: Definition and Goals, Scope and Importance in Modern Society, Threat landscape: Statistics and recent real-life cyber-attacks, Basics of Information Security: Confidentiality, Integrity, and Availability (CIA Triad).

UNIT-2

TYPES OF CYBER ATTACKS:

Malware (Viruses, Worms, Trojans, Ransomware), Phishing, Spoofing, Denial of Service (DoS/DDoS), Man-in-the-middle (MitM), SQL Injection, Zero-day attacks, Social engineering attacks.

MODULE-2

UNIT-1

0L+9T+9P+0SL = 18 Hours

CYBER SAFETY AND BEST PRACTICES:

Password protection and Multi-Factor Authentication, Safe browsing habits and email hygiene, Mobile device security, Secure use of social media platforms, Safe use of public Wi-Fi.

UNIT-2

CYBER LAWS AND ETHICS:

Overview of Indian IT Act 2000 & amendments, Digital signature, cyber-crime laws, Data Privacy & GDPR, Cyber ethics & responsible digital behaviour.

UNIT-3

THREATS, ATTACKS, AND VULNERABILITIES:

Online Threat Vectors: Web, Email, USB, Social Media, Introduction to Vulnerabilities and Risk Concepts, Case Studies: Real-world Cyber Attacks.



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SKILLS:

- ✓ Awareness of common cyber threats and online risks.
- ✓ Ability to identify phishing, fraud messages, and unsafe links.
- ✓ Practice of strong password habits and secure digital behaviour.
- ✓ Understanding of real-world cybercrime scenarios.

PRACTICES:

- Working of phishing emails.
- Secure password creation.
- Browser settings and privacy tools.
- Use of antivirus/firewalls/Two-Factor Authentication (2FA).
- Introduction to tools like Wireshark, Burp Suite demo.
- Cybercrime reporting portal walk-through.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Understand and apply the fundamentals of cybersecurity and cyber threats.	Apply	1,2,6,8
2	Identify and explain common cyber threats and personal protection techniques.	Apply	1,2,3,4,6
3	Demonstrate safe browsing, secure communication practices, and recognize scam patterns.	Apply	2,3,4,6,8
4	Appreciate the role of cybersecurity across different fields and in daily personal use.	Apply	1, 2, 3,5

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS):**TEXTBOOK:**

1. EC-Council, "Cybersecurity Essentials", Cengage Learning, 2021.

REFERENCE BOOKS:

1. Nina Godbole & Sunit Belpure, "Cyber Security: Understanding Cyber Crimes, Computer Forensics and Legal Perspectives", Wiley India.
2. James Graham, "Introduction to Cyber-Warfare: A Multidisciplinary Approach", Syngress.
3. Peter W. Singer & Allan Friedman, "Cybersecurity and Cyberwar: What Everyone Needs to Know", Oxford University Press.

SKILLS:

- ✓ Understand foundational constitutional principles and values.
- ✓ Identify and apply rights and duties in everyday civic life.
- ✓ Analyze government structure and local governance mechanisms.

PRACTICES:

- Mock Gram Sabha or Ward Committee meeting.
- RTI Application writing workshop.
- Constitution Quiz based on rights and duties.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Implement the core principles and features of the Indian Constitution in real- life civic and democratic situations.	Apply	6
2	Dissect the significance of Fundamental Rights, Duties, and Directive Principles in promoting constitutional morality.	Analyze	6,7
3	Differentiate the roles of constitutional institutions and intergovernmental relations in sustaining India’s federal framework.	Analyze	6,7
4	Evaluate the performance of the Indian Constitution in upholding democratic values and social justice.	Evaluate	6,7

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):



TEXTBOOK:

1. B.R. Ambedkar – The Constitution of India, Educreation Publishing, 2020.

REFERENCE BOOKS:

1. P.M. Bakshi – The Constitution of India, Universal Law Publishing, 15th Ed.
2. Subhash Kashyap – Our Constitution, National Book Trust, 2011.
3. Arun Thiruvengadam – The Constitution of India: A Contextual Analysis, Hart, 2017.
4. Constituent Assembly Debates – Lok Sabha Secretariat.
5. Arthashastra (Kautilya) – Translations on governance.
6. Manusmriti (Select chapters on duties and justice).

22SA103 PHYSICAL FITNESS

Hours Per Week :

L	T	P	SL	C
0	0	2	0	1

PREREQUISITE KNOWLEDGE: Nil

COURSE DESCRIPTION AND OBJECTIVES:

This course offers students a structured approach to improve their physical fitness and mental wellness using evidence-based exercise science and traditional yogic wisdom. It emphasizes developing strength, endurance, flexibility, and emotional balance, and encourages students to incorporate lifelong wellness habits.

MODULE-1

UNIT-1

0L+0T+12P+0SL = 12 Hours

FUNDAMENTALS OF PHYSICAL FITNESS:

Health-related and skill-related fitness components, Fitness assessment techniques and health screening, Posture and gait analysis.

UNIT-2

ASSOCIATING:

Endurance training methods – HIIT, continuous running, basic circuit training, Strength training using bodyweight and resistance, Importance of core stability and functional fitness, Injury prevention and recovery basics.

PRACTICES:

- Warm-up and mobility exercises, Stretching exercises.
- Running ABC Exercises.
- Speed Training - Short Sprints (30 Meter Run), Shuttle Runs.
- 400 Meters run, 100 Meters run.
- Bodyweight strength circuit (Sit- Ups and Push-Ups).
- Endurance (running/jogging/skipping).
- Static & dynamic stretching.
- Postural correction activities.

MODULE-2

UNIT-1

0L+0T+18P+0SL = 18 Hours

FLEXIBILITY, STRENGTH & COORDINATION:

Static and dynamic stretching, Balance drills and neuromuscular coordination, Plyometric and agility ladder exercises, Integration of yoga practices for cool-down.

UNIT-2

NUTRITION, RECOVERY & FITNESS HABITS:

Basics of sports and yogic nutrition, Macronutrients, hydration, meal planning, Role of sleep and active recovery, Fitness myths and self-monitoring.

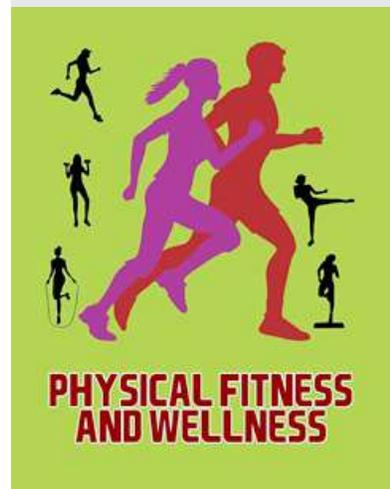


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SKILLS:

- ✓ Improved strength, endurance, and flexibility.
- ✓ Understanding of fitness principles.
- ✓ Discipline and goal-setting.
- ✓ Teamwork and communication.

UNIT-3

YOGA PRACTICES FOR WELLBEING:

Asanas (10–15) for flexibility, balance, and spine health, Pranayama: Anulom-Vilom, Bhramari, Kapalabhati, Meditation: Breath focus, Om chanting, Yoga Nidra and relaxation techniques.

PRACTICES:

- Guided Sukshma Vyayam and Asana sequences.
- Meditation.
- Yoga Nidra.
- Nutrition logging.
- Breath-focused mindfulness activities.
- Group Reflections.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Describe the physiological effects of exercise on the body systems.	Apply	1	7,8,9,10,11
2	Apply the FITT (Frequency, Intensity, Time, Type) principle to personal fitness plans.	Apply	1	7,8,9,10,11
3	Assess personal fitness levels through various fitness tests.	Analyze	2	7,8,9,10,11
4	Evaluate progress toward personal fitness goals and make adjustments as needed.	Evaluate	2	7,8,9,10,11
5	Construct a lifestyle plan that integrates regular physical activity for long-term health and fitness.	Create	2	7,8,9,10,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):



22SA104 LIFE SKILLS

Hours Per Week :

L	T	P	SL	C
0	0	2	0	1

PREREQUISITE KNOWLEDGE: Nil

COURSE DESCRIPTION AND OBJECTIVES:

This course offers orientation in life skills. Its objective is to acquaint students with the social and inter-personal skills that will enable them to cope with the constantly changing environment. Developing general self-awareness & self-expression.

KUCHIPUDI

MODULE-1

0L+0T+12P+0SL = 12 Hours

Origin of dance according to Natya Shastra, 1-10 Asamyukta hastaalu, 11-20 Asamyukta hastaalu.

MODULE-2

0L+0T+18P+0SL = 18 Hours

21-28 Asamyukta hastaalu, Chaturvidha Abhinayaalu, 1-12 Asamyukta hastaalu, 13-24 Asamyukta hastaalu, Pancha jaatulu, Rasa theory, Classical dance forms of India.

WESTERN DANCE

MODULE-1

0L+0T+12P+0SL = 12 Hours

Basic of Freestyle dancing, Understanding the Rhythm.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Adapting the basic steps to different music's, Assignments – using same choreography routines to different tracks.

CARNATIC MUSIC

MODULE-1

0L+0T+12P+0SL = 12 Hours

Basics of carnatic music, Sarali swarali 3 speeds, Akaara sadhana, Janta swaralu introduction, Importance of Raag, Taal and about different instruments.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Bhadrachala ramadasu keertanalu, Composing a song, Sing along with karaoke, Popular writers compositions from different languages, Students should do project about music and a famous person related to music.

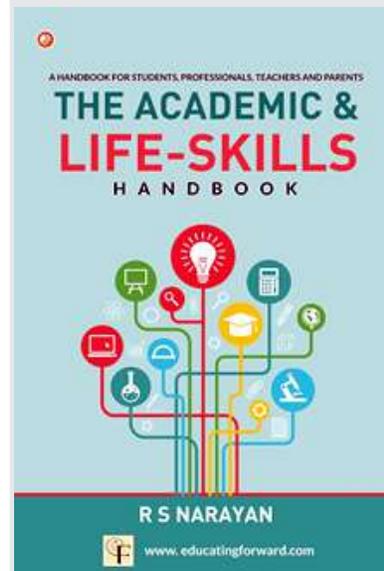


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SKILLS:

- ✓ *Bouncing back from setbacks and adversity.*
- ✓ *Thinking outside the box to generate new ideas.*
- ✓ *Discipline and goal-setting.*
- ✓ *Teamwork and communication.*

PUBLIC SPEAKING

MODULE-1

0L+0T+12P+0SL = 12 Hours

Introduction to Public Speaking, Informative Speaking, Listening Effectively.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Organizing and Outlining, Delivering Your Speech, Introductions and Conclusions, Critical Thinking and Reasoning.

PAINTING

MODULE-1

0L+0T+12P+0SL = 12 Hours

Free hand outlines drawing on the basis of creativity, originality and individuality.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Memory drawings on various topics like games, festivals, animal study and daily life of society, Still Life with light and shade, Nature study like Landscape, waterfall and Forests etc.

YOGA

MODULE-1

0L+0T+12P+0SL = 12 Hours

Introduction to Yoga, Introduction to Yogasana Sports, Brief History of Yoga, Types, schools of Yoga, Sun salutations Variations.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Yoga for Stress, Introduction to Astanga Yoga, Introduction to classical texts of Yoga, Yogic Diet, Yoga Nidra, Introduction to Meditation, Yoga for Sports, Injury Management with Yoga, Introduction to Yoga therapy, Yoga for weight loss, Diabetes.

COOKERY

MODULE-1

0L+0T+12P+0SL = 12 Hours

Preparation of Bread Halwa, Flavoured Milk, Veggie soups, Herbal Tea.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Fritters, Rasagulla, Onion Samosa, Soya Nuggets, Dhokla, Cutlet.

VIDEO EDITING

MODULE-1

0L+0T+12P+0SL = 12 Hours

Necessity & Principles of Editing, Editing for the genre, Film Appreciation, Digital Filmmaking.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Post Production Tools, Film Editing Styles, Audio Editing and Production, Enhancing Video with Color Grading, Advanced editing techniques, Motion Graphics & Video Editing Portfolio Development.

GERMAN

MODULE-1

0L+0T+12P+0SL = 12 Hours

Alphabet, numbers, greetings, geschwister.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Familie,wo wohnen sie, nachbarn von familie wiegel, inline skaten, wetter, fernsehen, Hobbies.

FRENCH

MODULE-1

0L+0T+12P+0SL = 12 Hours

Pour saluer, Les jours de la semaine, Les mois de l' année.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Les nombres, Décrire l'heure, Les verbes être,avoir et aller, Les nationalités, Les professions, Les fruits et les legumes, Les adjectifs pour décrire une person.

PHOTOGRAPHY

MODULE-1

0L+0T+12P+0SL = 12 Hours

Introduction to Photography, Photography Evolution, Different types of Nature lights.

MODULE-2

0L+0T+18P+0SL = 18 Hours

DSLR Parts and Types of DSLR's, Anatomy of Camera and Lenses, Types of Lenses, Photo framing, Image resolution, Exposure triangle.

APSSDC ELECTRICAL HOME

MODULE-1

0L+0T+12P+0SL = 12 Hours

Understanding and testing of live switch boards, DB distribution boards, Staircase wiring, complete wiring of 1 BHK, 2 BHK.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Erection and maintenance of fan & tube light, Understanding the protection devices, 20 Minutes timer, LDR with timer control, Impulse relay.

APSSDC ELECTRONICS HOME

MODULE-1

0L+0T+12P+0SL = 12 Hours

Understanding of series and parallel connection of bulbs.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Working of ceiling fan, tubelight, mixer grinder, iron box.

BLOCK PRINTING

MODULE-1

0L+0T+12P+0SL = 12 Hours

Introduction to Kalamkari Painting, Tools and Materials for Kalamkari.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Basic Techniques and Sketching for Kalamkari, Dyeing Techniques for Kalamkari Introduction to Block Printing, Block Printing Techniques and Final Projects.

HANDCRAFTS

MODULE-1

0L+0T+12P+0SL = 12 Hours

Plastic bottle with Shilpkar work, Paper craft for room decoration, Wall hanging with ice cream sticks.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Table stand with cotton buds, 3D outline with bottle decoration, Thermocol work.

SELF DEFENSE BY TAEKWONDO

MODULE-1

0L+0T+12P+0SL = 12 Hours

Self Defense by Taekwondo- Side Wrist Grip Escape and Cross Wrist Grip escape, Side Wrist Grip - Arm Bar, Wrist Lock, Shoulder Lock.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Double Wrist Grip Escape, Upper Double Grip Escape, Major Outer Reaping Throw, Major Hip Throw, One Arm Shoulder Throw.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Demonstrate proficiency in a variety of techniques	Apply	1	7,8,9,10,11
2	Identify, demonstrate and understand the structures and characteristics	Apply	1	7,8,9,10,11
3	Cultivate concentration, self-control, and emotional regulation.	Analyze	2	7,8,9,10,11
4	Demonstrate increased confidence and the ability to respond assertively and calmly in threatening situations.	Evaluate	2	7,8,9,10,11
5	Understand and apply sustainable and ethical practices.	Create	2	7,8,9,10,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS):



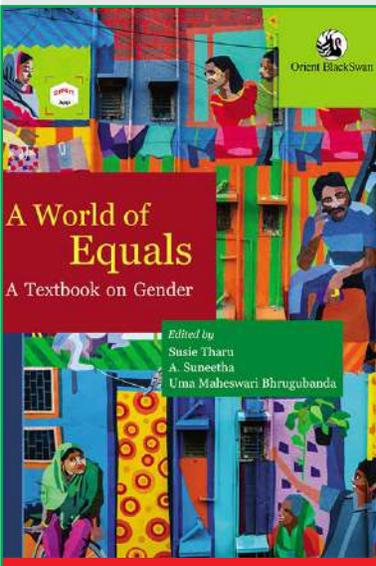


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22SA102 SELF-UNDERSTANDING AND GENDER SENSITIZATION

Hours Per Week

L	T	P	SL	C
0	0	2	0	1

PREREQUISITE KNOWLEDGE: Nil

COURSE DESCRIPTION AND OBJECTIVES:

To comprehend the dynamics of gender roles and relations within social and cultural contexts, and to evaluate legal and behavioral frameworks that promote gender equality and personal growth.

MODULE-1

0L+0T+12P+0SL=12 Hours

UNIT-1

UNDERSTANDING GENDER:

Concept of Gender: Distinction between Gender and Sex - Socialization and Gender Roles - Gender and Culture: Stereotypes and Social Conditioning - Gender-Based Violence: Forms, Impact and Prevention. **Shakti philosophy, contributions of women in Vedas.**

Activity-Based Learning: Group discussions on gender roles in media - Role plays on gender stereotyping - Case study analysis of real-life incidents of gender-based violence

UNIT-2

GENDER LAWS AND RIGHTS:

Gender and Labour: Equal Pay, Workplace Harassment, Maternity Benefits - Legal and Constitutional Provisions for Gender Equality in India: Article 14, 15, 16, 39, and 42, POSH Act, Domestic Violence Act, Dowry Prohibition Act - Women's Rights and Human Rights Framework. **Dharma-based equality, Sarvodaya philosophy.**

Activity-Based Learning: Legal case study presentations -Debate on gender justice and law implementation - Quiz on gender-related legal provisions

PRACTICES:

- Conduct a survey on gender roles and relations in the banking and IT sectors to assess employee attitudes and resistance to policy changes.
- Undertake a study to identify the impact of cultural perceptions on gender-based violence and its effects on workplace productivity.
- Analyze the characteristics and components of gender laws to evaluate their effectiveness in promoting labor rights and reducing gender discrimination.
- Perform a study on the determinants of gender roles and culture by reviewing media content and social norms to understand their influence on attitudes.
- Conduct a comparative analysis of constitutional and legal perspectives on gender equality to assess their impact on labor practices and gender sensitivity in various industries.

MODULE-2

0L+0T+18P+0SL=18 Hours

UNIT-1

SELF –EMPOWERMENT:

Self-awareness and Self-confidence -Building Personal Identity -Values and Ethics for Personal Growth - Goal Setting and Motivation.

Activity-Based Learning: Self-reflection journals - Vision board creation - Group sharing sessions

UNIT-2

PERSONALITY DEVELOPMENT SKILLS:

Types of Personality: Introvert, Extrovert, Ambivert - Good Manners and Professional Etiquette - Developing a Positive Attitude.

Activity-Based Learning: Role plays on etiquette, Personality-type assessment and group analysis, Positivity circles

UNIT-3

LIFE MANAGEMENT SKILLS:

Decision Making and Problem Solving - Interpersonal Communication Skills - Time and Stress Management - Conflict Resolution and Leadership.

Activity-Based Learning: Situational games for decision making, Time log and stress diary activity, Group project on conflict resolution strategies

PRACTICES:

- Survey on different personality types and their impact on workplace performance and team dynamics.
- Undertake a study on the effectiveness of etiquette training programs in improving professional interactions and workplace relationships.
- Analyze strategies for developing a positive attitude and their impact on employee engagement and job satisfaction.
- Conduct a study on time management practices and their influence on productivity and work-life balance.
- Perform a study on conflict management techniques and their effectiveness in resolving workplace disputes and improving team cohesion.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Analyze the influence of gender roles and cultural norms on individual behavior and social structures.	Analyze	6
2	Apply legal perspectives and gender laws to assess their impact on gender equality and labor rights.	Apply	6
3	Analyze various personality types and develop Strategies to apply good manners and etiquette in diverse settings.	Analyze	6
4	Apply decision-making and time management skills to enhance personal and professional effectiveness.	Apply	6
5	Analyze conflict management and leadership skills to effectively handle interpersonal and organizational Challenges.	Analyze	6

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS) :



REFERENCE BOOKS:

1. A World of Equals: A Textbook on Gender, Susie Tharu, Uma Maheswari Bhrugubanda (2022), Orient Blackswan Pvt. Limited.
2. Chitra Chellam (2022), Personality Development, Sara Book Publication.

SKILLS:

- ✓ Self Esteem Skills.
- ✓ Decision Making Skills.
- ✓ Problem Solving Skills.
- ✓ Team Building Skills.
- ✓ Interpersonal Skills.
- ✓ Leadership Skills.

22SS102 INDIAN KNOWLEDGE SYSTEMS

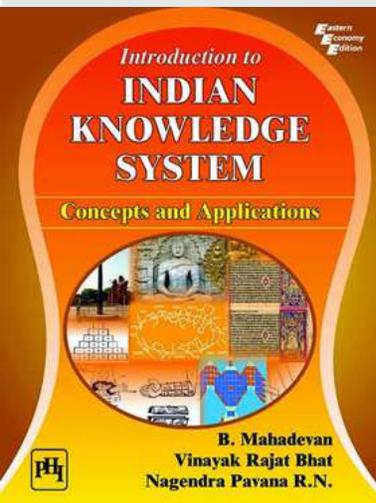


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Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE: High School – level knowledge on Indian history and society.

COURSE DESCRIPTION AND OBJECTIVES:

The course introduces students to India’s rich and diverse knowledge traditions and heritage. The profound insights, timeless wisdom, and diverse perspectives, originating from the ancient past have played a major role in shaping the country’s cultural identity. The richness of India’s intellectual heritage is vindicated by the existence of innumerable texts and thinkers in the country. By exploring India’s knowledge traditions, the course aims to help students learn how the country’s culture developed across the ages and to enable them look beyond conventional methods in finding solutions to scientific and technological issues.

MODULE-1

UNIT-1

0L+12T+0P+0SL = 12 Hours

INTRODUCTION TO INDIAN KNOWLEDGE SYSTEMS:

Definition, Scope, and Significance of IKS; Various Fields of Study in IKS (Science, Medicine, Arts, Linguistics, Philosophy, etc.); Key Texts and Sources of information for IKS: Vedic, Buddhist, Jain, and Other Traditions.

UNIT-2

PHILOSOPHICAL AND SCIENTIFIC FOUNDATIONS OF IKS:

Overview of Major Schools of Thought (Nyaya, Samkhya, Vedanta, etc.); Early Scientific and Technological Contributions (Mathematics, Astronomy, Medicine); Centers of Learning: Nalanda, Takshashila, and Others.

PRACTICES:

- Mapping IKS Disciplines – Create a chart or mind map showcasing various fields of study in IKS, including Science, Medicine, Arts, and Philosophy.
- Textual Exploration – Select and summarize insights from classical IKS texts (Vedas, Upanishads, Buddhist & Jain texts).
- IKS in Daily News – Collect newspaper articles on IKS-related discoveries (archaeological findings, indigenous technologies, art forms) and discuss their relevance.
- Field Visit/Virtual Tour – Explore ancient centers of learning like Nalanda and Takshashila (via museum visits, documentaries).
- Poster Display of Philosophers – Create visual profiles of prominent ancient philosophers (e.g., Charaka, Sushruta, Panini, Aryabhata).

MODULE-2

UNIT-1

0L+18T+0P+0SL = 18 Hours

DISCIPLINE-SPECIFIC INDIAN KNOWLEDGE SYSTEMS:

Role of IKS within the discipline (Science, Technology, or Law); Key Concepts and Applications within the discipline; Demonstration of IKS via real-life examples (Traditional Art, Architecture, and Indigenous Engineering Practices).

UNIT-2

RELEVANCE OF IKS IN THE MODERN WORLD:

Contributions of IKS to Global Knowledge Systems; Revival and Integration of IKS with Contemporary Science and Technology; Challenges and Opportunities in Preserving IKS.

UNIT-3

IKS AND SUSTAINABLE PRACTICES:

Indigenous Knowledge in Agriculture, Water Management, and Medicine; Environmental Ethics in Ancient Indian Traditions; Case Studies on Sustainable Development Using IKS.

PRACTICES:

- Discipline-Specific IKS Study – Research and present how IKS applies to law, governance, science, architecture, or technology.
- Exploring Indigenous Techniques – Engage in practical demonstrations of traditional knowledge such as Yoga, Meditation, Martial Arts (Karra Saamu), or Body Art.
- IKS Documentation Project – Collect and document indigenous knowledge traditions, such as traditional medicine, water harvesting, or agriculture.
- Awareness on Intellectual Property Risks – Use the internet to study indigenous intellectual properties that are at risk of international appropriation.
- Group Discussion on Challenges to IKS – Debate the modern relevance and challenges in preserving IKS, and propose solutions for its integration into science and technology.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply basic concepts of Indian Knowledge Systems to recognize their relevance in contemporary science, engineering, and society.	Apply	6, 11
2	Analyze selected indigenous practices in areas such as health, environment, water management, or architecture to understand their principles.	Analyze	6, 8, 9, 11
3	Evaluate the ethical and ecological values embedded in IKS and their relevance to sustainability and social responsibility.	Evaluate	6, 7
4	Develop an informed understanding of Indian Knowledge Systems by applying them in reflections, discussions, or illustrative examples.	Apply	6, 8, 9, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):



TEXTBOOKS:

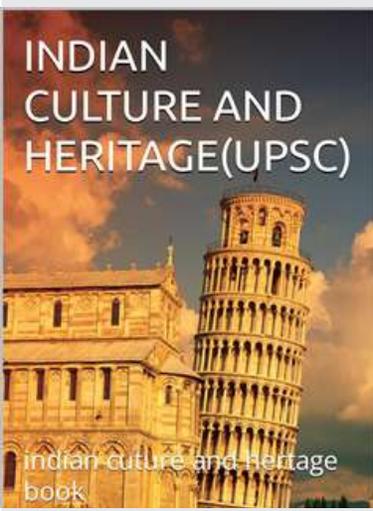
1. B. Mahadevan, Vinayak Rajat Bhat, Nagendra Pavana R. N., Introduction to Indian Knowledge System: Concepts and Applications, PHI Learning Private Limited, Delhi, 2023.
2. Mukul Chandra Bora, Foundations of Bharatiya Knowledge System, Khanna Book Publishing, 2023.

REFERENCE BOOKS:

1. Dhirendranath Banerjee and Sanjit Kumar Sadhukan (ed.), Ancient Indian Scientific Thought and Modern Theories: An Overview, National Mission for Manuscripts and D. K. Printworld, 2019.
2. Shaik Taufiq Khalil, Indian Knowledge System: Arthshastra by Kautilya, Notion Press, 2023.
3. Chauhan Bhag Chand, IKS: The Knowledge System of Bharata, Garuda Prakashan, 2023.

SKILLS:

- ✓ Ability to analyze and evaluate Indian Knowledge System (IKS) practices in the context of modern challenges.
- ✓ Problem-solving skills through the application of IKS principles to contemporary issues.
- ✓ Strong research skills in gathering and analyzing information related to IKS.
- ✓ Collaborative skills for preserving and promoting IKS.
- ✓ Enthusiasm for learning and practicing traditional skills such as weaving, pottery, and herbal medicine.



22SS103 INDIAN CULTURE AND HERITAGE

Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE: Basic understanding of Indian history and culture at the high school level.

COURSE DESCRIPTION AND OBJECTIVES:

This course introduces students to the foundational concepts, expressions, and institutions of Indian culture and heritage. Students will explore the richness of India’s tangible and intangible legacies-its philosophies, arts, knowledge systems, and monuments-while engaging with key values like unity in diversity, sustainability, and respect for tradition. The course emphasizes civic responsibility, heritage preservation, and the contemporary relevance of India’s cultural identity.

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MODULE-1

UNIT-1

0L + 12T + 0P + 0SL = 12 Hours

CULTURE AND HERITAGE – MEANINGS AND DIMENSIONS:

Definitions: Culture and Heritage; Distinction between tangible and intangible heritage; Core features of Indian culture (Sanskriti): unity in diversity, continuity, and pluralism; Role of heritage in shaping identity and nation-building.

UNIT-2

HISTORICAL ROOTS OF HERITAGE:

Harappan Civilization and its heritage: city planning, trade, and script; **Vedic culture** and religious texts as cultural heritage; Cultural impact of Buddhism and Jainism; Bhakti and Sufi traditions as living intangible heritage; Local traditions and oral culture across regions.

PRACTICES:

- Comparative poster/chart on tangible vs intangible heritage.
- Case study presentation: a local or regional tradition.
- Group presentation on an ancient site recognized by UNESCO.
- Write a short essay: “Why preserve heritage in the digital age?”

MODULE-2

UNIT-1

0L + 18T + 0P + 0SL = 18 Hours

TANGIBLE HERITAGE – ART, ARCHITECTURE, AND MONUMENTS:

Architectural diversity: Temples, Mosques, Churches, Stupas, Forts, Palaces, and Rock-cut caves; Notable heritage sites: Hampi, Qutub Minar, Taj Mahal, Konark, Charminar, Lepakshi Temple, Amaravati Stupa, and Victoria Memorial; Conservation challenges: environmental threats, pollution, neglect, urbanization, and insensitive tourism; Role of ASI and UNESCO World Heritage recognition.

UNIT-2

INTANGIBLE HERITAGE – KNOWLEDGE, FESTIVALS, AND VALUES:

Indian classical music and dance as living heritage; Traditional systems: Ayurveda, Yoga, and traditional ecological knowledge; Community-based practices: folk traditions and seasonal festivals; Core cultural values: non-violence, nature worship, family systems, and community life.

UNIT-3

HERITAGE PRESERVATION IN MODERN INDIA:

Heritage sense during the freedom struggle (e.g., revival of Khadi, Swadeshi art); National institutions preserving heritage: IGNCA, INTACH, and ASI; Digital documentation and cultural mapping initiatives; Youth and civic responsibility in heritage conservation.

PRACTICES:

- Virtual tour/report on a heritage site.
- Storyboarding: heritage in daily life.
- Role-play or debate: “Heritage vs. Modernity – Finding the Balance.”
- Case studies of successful community preservation efforts.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply key concepts of Indian culture and heritage to appreciate its role in shaping societal values and identity.	Apply	6, 11
2	Analyze the evolution and characteristics of India’s tangible and intangible heritage across regions and time.	Analyze	5, 6, 8
3	Evaluate contemporary challenges and strategies in preserving heritage through institutional and civic efforts.	Evaluate	6, 7, 8
4	Evaluate how cultural values can inform ethical decision-making, sustainability practices, and inclusive societal participation.	Evaluate	6, 7, 8

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):



TEXTBOOKS:

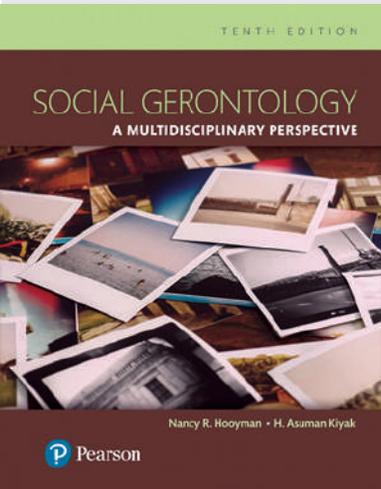
1. B. B. Satpathy, Indian Culture and Heritage, DDCE, Utkal University, 2015.
2. NIOS Course Material: Indian Culture and Heritage (223).
3. A.L. Basham, The Wonder That Was India, Vol.1, Rupa Publications, 1954.

REFERENCE BOOKS:

1. S. Radhakrishnan, Indian Philosophy: Volume I, 2nd ed., Oxford University Press India, 2008
2. Romila Thapar, The Penguin History of Early India: From the Origins to AD 1300, Penguin Books India, 2003.
3. John Keay, India: A History-Revised and Updated, Harper Collins, 2012.
4. Michel Danino, The Lost River; On the Trail of the Sarasvatī, Penguin Books India, 2010.

SKILLS:

- ✓ Cultural awareness and ethical reasoning.
- ✓ Visual, analytical, and storytelling skills.
- ✓ Heritage appreciation and preservation thinking.
- ✓ Inclusive and civic-minded citizenship.



22SS105 GERONTOLOGY

Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE: Basic understanding of Indian society, family structure, and human development from middle school social studies.

COURSE DESCRIPTION AND OBJECTIVES:

This course provides an introduction to gerontology - the study of aging. This course helps students explore what it means to grow old in India, the role of the elderly in Indian families and society, and how we can care for and support older adults. It aims to help students understand the complexities of aging, challenge common stereotypes, and appreciate the diversity of the older adult population in India. Students will learn about real-life challenges faced by older people and ways to build a more inclusive, respectful society.

MODULE-1

UNIT-1

0L+12T+0P+0SL = 12 Hours

UNDERSTANDING AGING: BIOLOGICAL AND PSYCHOLOGICAL PERSPECTIVES:

Defining Gerontology: Introduction to the field, and its importance, with a note on the demographic shift in India; Theories of Aging: Biological theories (e.g., cellular clock theory, free radical theory) and psychological theories (e.g., Erikson’s stages of psychosocial development, activity theory) and their applicability in the Indian context; Physiological Changes with Age: Common changes in body systems (e.g., cardiovascular, musculoskeletal, nervous) and common health challenges faced by older adults in India; Cognitive Changes with Age: Memory, attention, problem-solving, and the concept of cognitive reserve, with a focus on cognitive health in the Indian population; Mental Health in Later Life: Common challenges (e.g., depression, anxiety) and promoting well-being, considering cultural factors influencing mental health in older Indians.

UNIT-2

SOCIAL ASPECTS OF AGING AND DIVERSE EXPERIENCES IN INDIA:

Social Theories of Aging: Disengagement theory, continuity theory, socioemotional selectivity theory, and their relevance to Indian societal structures; Ageism and Stereotypes: Understanding prejudice and discrimination against older adults in India, challenging negative perceptions and cultural notions of aging; Family and Social Relationships: Role of the joint family system, nuclear families, friendships, and community networks in later life in India; Diversity in Aging in India: Exploring differences based on gender, rural/urban divide, socioeconomic status, religion, and regional variations in experiences of aging; Work, Retirement, and Leisure: Transitions in later life, challenges of formal and informal employment in old age, and the importance of meaningful engagement and traditional leisure activities.

PRACTICES:

- Create a “Grandparent Appreciation Poster” with stories or photos.
- Class discussion on respecting older people.
- Interview a grandparent or senior neighbour and share their experiences.

- Group discussions on common stereotypes about older adults in India and how to challenge them.

MODULE-2

SKILLS:

- ✓ Awareness of elderly rights and welfare mechanisms.
- ✓ Respect for cultural values and traditions towards elderly in India.
- ✓ Critical analysis of aging theories, stereotypes, demographic trends and policies with in Indian context.
- ✓ Understanding the diverse needs of older adults in India and societal responses.
- ✓ Interpretation of research data related to aging populations in India.
- ✓ Designing community-oriented aging interventions.

UNIT-1

0L+18T+0P+0SL=18 Hours

HEALTH, WELLNESS, AND CARE IN LATER LIFE IN INDIA:

Promoting Healthy Aging: Lifestyle factors (nutrition, traditional diets, yoga, exercise), preventive care and traditional Indian health practices (e.g., Ayurveda); Common Health Conditions: Chronic diseases (e.g., arthritis, diabetes, heart disease) prevalent in India and their management, including access to healthcare; Healthcare Systems for Older Adults in India: Public and private healthcare, challenges of access and affordability, role of family caregivers, and emerging long-term care options; Palliative and End-of-Life Care: Understanding hospice, advance directives, and grief in the Indian cultural context; Technology and Aging: Assistive technologies, telehealth, and their role in supporting older adults in India, considering digital literacy and access.

UNIT-2

AGING IN INDIAN SOCIETY: POLICIES AND COMMUNITY SUPPORT:

Aging-in-Place and Age-Friendly Communities: Concepts and practical applications in Indian cities and villages; Social Policies and Programs for Older Adults in India: National Policy on Older Persons, Maintenance and Welfare of Parents and Senior Citizens Act, government schemes and initiatives; Intergenerational Relationships: Benefits of connecting different age groups, role of grandparents, and promoting intergenerational harmony in India; Ethical Considerations in Gerontology in India: Autonomy, informed consent, elder abuse prevention, and legal protections for older adults; Global Aging: Demographic trends and challenges worldwide, with a specific focus on India's rapidly aging population and its implications.

UNIT-3

INDIAN HERITAGE AND CULTURE IN AGING:

Culture and Civilization: Key characteristics of Indian culture and their influence on perceptions and experiences of aging; Visual Arts: Architecture, Sculpture, and UNESCO Heritage Sites as reflections of historical attitudes towards elders and their contributions; Performing Arts: Classical Music, Dance, and Literature as expressions of wisdom, tradition, and the life cycle in India; Traditional Wisdom and Aging: Exploring concepts like "*vanaprastha*" and the reverence for elders in Indian philosophy and texts; Role of Spirituality and Religion: Impact of spiritual and religious practices on well-being in later life in India.

PRACTICES:

- Research on age-friendly initiatives in Indian communities.
- Debate on the ethical considerations surrounding emerging technologies in aging, particularly for the Indian demographic.
- Analysis of how Indian cultural heritage reflects and influences the concept of aging.
- Visit to a local elder care centre or old age home.
- Make a "Healthy Aging Tips" chart.
- Skit or role play on how to care for elders at home or in public.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Understand and apply core concepts and theories of gerontology.	Apply	6, 7, 8, 9
2	Analyze the social determinants of aging and the diverse experiences of older adults in India.	Analyze	6, 7, 8, 9
3	Evaluate the healthcare needs and policy frameworks relevant to older adults in India.	Evaluate	6, 7, 8, 9
4	Design and assess community-based solutions for elder care.	Create	6, 7, 8, 9

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):



TEXTBOOKS:

1. Hooyman, N. R., & Kiyak, H. A., Social Gerontology: A Multidisciplinary Perspective. Pearson, 2018.
2. Quadagno, J., Aging and the Life Course: An Introduction to Social Gerontology. McGraw-Hill Education, 2017.

REFERENCE BOOKS:

1. Irudaya Rajan, S., India's Elderly: Burden or Asset? Routledge, 2016.
2. Prakash, I. J., Aging in India: A Sociological Perspective. Rawat Publications, 2009.
3. Kumar, A., Elderly in India: A Socio-Economic Profile. Serials Publications, 2011.
4. Moody, H. R., & Sasser, B. R., Aging: Concepts and Controversies. Sage Publications, 2018.
5. Paltasingh, Tattwamasi, & Tyagi, Renu, Caring for the Elderly: Social Gerontology in the Indian Context. Sage Publications, 2015.
6. Victor, Christina R., The Social Context of Aging: A Textbook of Gerontology. Routledge, 2005.

22ME102 DO IT YOURSELF

Hours Per Week :

L	T	P	SL	C
0	0	2	0	1

PREREQUISITE KNOWLEDGE: Nil

COURSE DESCRIPTION AND OBJECTIVES:

This course is to empower the learners with hands-on experience in designing, fabricating, and testing small-scale engineering systems or components. The course objective is to emphasize creativity, innovation, and real-world problem solving through “learning by doing.”

MODULE-1

0L+0T+12P+0SL = 12 Hours

FUNDAMENTALS OF CARPENTRY AND PLUMBING

UNIT-1

CARPENTRY:

Introduction to carpentry tools, use of tools for making simple objects like wooden shelf, picture frame, planters box, coat rack, floating shelves. *Śilpa Śāstra (Woodwork & Craftsmanship)*

UNIT-2

PLUMBING:

Introduction to Plumbing tools, use of tools for making simple objects like fitting of taps, faucets, shower heads, replacement of washers in taps, simple pipe joints, few installations

PRACTICES:

- Design and construct a stable and functional 3-tier bookshelf made from plywood or reclaimed wood using dowel joints and varnished for finish using measuring tape, saw, chisel, drill, wood glue.
- Construct a portable and sturdy 3-legged stool made of teak or pine with dowel or mortise joints using Mallet, wood rasp, chisel, clamps.
- Fabricate a safe and user-friendly wooden organizer for books with crate-style bins fixed on a frame with rounded corners for safety using sandpaper, saw, wood router
- Craft a custom wall art panel or divider using CNC-routed or hand-carved geometric or nature-themed panels using CNC router or jigsaw, sander, varnish.
- Make a small desktop stand with precision-cut grooves for gadgets and accessories to hold mobile phones, pens, and sticky note using Coping saw, file, drill press.
- Replace a worn-out rubber washer inside a leaking compression tap using adjustable spanner, flat-head screwdriver, replacement washer, PTFE tape.
- Install a downpipe from the terrace with filtration and diversion to a recharge well using PVC downpipes, filter mesh, first-flush diverter, underground pipe, stones.
- Install a new wall-mounted faucet to replace a broken head, using standard plumbing fittings, pipe wrench, adjustable spanner, pipe sealant tape.
- Plan and install a PVC-based water line with two tap outlets and one washing machine point using T- and elbow joints using PVC cutter, solvent cement, marker, sandpaper.
- Install outlet piping from a 500L overhead water tank to supply a bathroom, kitchen, and garden tap using gravity flow using HDPE pipes, ball valves, elbows, thread tape, support brackets.

SKILLS:

- ✓ *Accurate measuring, marking, and cutting of wood.*
- ✓ *Identification and use of plumbing tools and fittings.*
- ✓ *Operating FDM 3D printers.*
- ✓ *Safe handling of electrical tools and live circuits.*
- ✓ *Disassembly and reassembly of small appliances.*

MODULE-2**0L+0T+18P+0SL = 18 hours****DIY JOBS RELATED TO ADVANCED APPLICATIONS****UNIT-1****3D PRINTING:**

Introduction to the concept of FDM – 3D printing, printing of objects like spoon, mobile stand, pen holder, key chain

UNIT-2**HOME APPLIANCES:**

Introduction to tools used in assembling/repairing home appliances, assembling of ceiling fan, change of capacitor of fan, checking of faulty winding in electrical appliances, Preventive Maintenance of a Split AC System

.UNIT-3**HOUSE WIRING:**

Introduction to tools used in house wiring, fixing of tube light, fan, checking and repairing of a faulty fuse, fixing of a faulty switch/socket,

PRACTICES:

- List the steps you would follow to set up the printer, calibrate the build plate, and load the filament. What safety precautions should you take when handling the 3D printer?
- You need to print a simple personalized keychain with your initials using a 3D printer.
- You want to print a simple carabiner hook that will be used for carrying tools or equipment.
- You want to create a small, functional lock mechanism using 3D printing.
- You need to create a functional smartphone stand to hold your phone at an angle for watching videos or video calls.
- You have purchased a ceiling fan and wish to assemble and install it without professional help. List the sequence of steps you would follow to safely assemble and install the fan. What safety precautions must you take before beginning the installation?
- Your refrigerator seems to be cooling less effectively than usual. What simple checks and maintenance tasks can you perform yourself before calling a technician? Include cleaning, defrosting, and ventilation considerations.
- You have bought a new flat-screen TV and wall mount. What are the steps to assemble and mount it safely? What precautions must be taken regarding wire management and socket access?
- A tube light in your kitchen is flickering continuously and eventually stops working. After replacing the tube and starter, the issue persists. Describe the steps you would take to identify and fix the problem. What are the possible faulty components? How would you confirm if the ballast needs replacement?
- A room in your house loses power suddenly while other areas are unaffected. You suspect a blown fuse. How would you confirm this? Explain how to safely check and replace the fuse. What precautions should be taken to avoid future fuse failures?
- A wall switch that controls your living room light is no longer working — the light does not turn on even after changing the bulb. How would you go about checking the switch? What steps would you follow to replace it yourself, and how would you ensure it's safe to operate afterward?
- A socket in your bedroom is loose and occasionally sparks when plugging in devices. What are the risks involved, and how would you inspect and repair the socket? What are the signs that the socket needs replacement versus just re-tightening the connections?

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply basic carpentry techniques to measure, cut, shape, and assemble wooden components using hand and power tools	Apply	1,5,6,7,10
2	Demonstrate the ability to install, maintain, and troubleshoot common residential plumbing systems	Apply	1,5,6,7,11
3	Design and fabricate functional 3D models using slicing software and additive manufacturing techniques	Create	1,5,10,11
4	Inspect, diagnose, and repair common faults in household appliances	Analyze	1,4,6
5	Construct safe and functional single-phase electrical wiring circuits for lighting, switching, and plug points	Evaluate	1,2,6,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):



TEXTBOOK:

1. “Basic Electrical Installation Work” by Trevor Linsley.

REFERENCE BOOKS:

1. “3D Printing and Additive Manufacturing: Principles and Applications” by Chee Kai Chua & Kah Fai Leong.
2. “Ultimate Guide: Plumbing” by Merle Henkenius
3. “Carpentry Complete” by Andy Engel.



C22

**Curriculum &
Course Contents**

B.Tech. (BiPC Stream)

w.e.f. batch 2022-29

ORIENTATION
PROGRAM
&
PRE
SEMESTER

B.Tech.

COURSE CONTENTS

ORIENTATION &
PRE-SEMESTER

ORIENTATION PROGRAM

- ▶ **22SA101** - Orientation Program (Induction)

PRE SEMESTER

- ▶ **22MT102** - Engineering Mathematics Fundamentals (BiPC Streams)
- ▶ **22EN101** - English Language and Communication
- ▶ **22TP101** - Foundations of Quantitative Aptitude and Logical Reasoning
- ▶ **22AM101** - IT Tools
- ▶ **22SS104** - Stories of Indian Independence
- ▶ **22EN102** - Universal Human Values

22SA101 ORIENTATION PROGRAM

Hours Per Semester :

L	T	P	SL	C
0	30	0	0	1

Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE: Nil**COURSE DESCRIPTION AND OBJECTIVES:**

This course is intended to help the students in getting adjusted with the new environment, to develop bondage with other students and faculty along with learning the institutional policies. The purpose of the orientation course is to create awareness on various issues that are essential for any individual. To familiarize the fresh entrants with the new environment and system in engineering education. To make the students a responsible citizens. To promote smooth transition from +2 level education to graduate program among students.

MODULE-1**0L+12T+0P+0SL = 12 Hours****UNIT-1****SOCIALIZING:**

Interaction with faculty members, Deans, peers, student bodies and alumni.

UNIT-2**ASSOCIATING:**

Eco-friendly practice and sustainable living, teaching sessions to school children of adopted villages, Interaction with farmers and identifying the problems, Field Visits.

PRACTICES:

- Stress assessment and management.
- Sustainable living.
- Iconic visit.

MODULE-2**0L+18T+0P+0SL = 18 Hours****UNIT-1****GOVERNING:**

Brief about regulations and assessment pattern, Interaction with the functionaries i.e. Chancellor, Vice Chancellor and Registrar.

UNIT-2**EXPERIENCING:**

Physical activity, Creative arts, Literary activities.

UNIT-3**MEDITATION:**

Customizing Daily routines and Habits, Practicing Meditation.



SKILLS:

- ✓ *Understanding of organizational knowledge.*
- ✓ *Compliance Awareness.*
- ✓ *Team Integration.*
- ✓ *Adaptability and Confidence.*

PRACTICES:

- Yoga and meditation.
- Sports and Games.
- Any of the one creative art.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Become familiar with the institute ethics and culture.	Apply	7,8,9,10,12
2	Cope up with stress management through meditation.	Analyze	7,8,9,10,12
3	Socially conscious towards the society and environment.	Apply	7,8,9,10,12
4	Build bonds with peers and faculty members.	Apply	7,8,9,10,12

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) :

22MT102 ENGINEERING MATHEMATICS FUNDAMENTALS

Hours Per Week :

L	T	P	SL	C
0	3	2	0	1

PREREQUISITE KNOWLEDGE: Basic algebra, trigonometry and elementary geometry.

COURSE DESCRIPTION AND OBJECTIVES:

This course provides fundamental mathematical concepts essential for engineering applications. It aims to enhance problem-solving skills and analytical thinking by covering algebraic expressions, coordinate geometry, trigonometry, permutations and combinations. The course focuses on practical applications in engineering scenarios.

MODULE-1

0L+06T+04P+0SL=10 Hours

UNIT-1

FUNDAMENTALS OF ALGEBRA:

Algebraic Expressions and Identities: Laws of exponents (basic usage), Simple factorization and simplification, Logarithm.

Linear and Quadratic Equations: Methods of solving (factorization, completing the square, quadratic formula).

UNIT-2

TRIGONOMETRY:

Definitions of trigonometric functions (right triangle approach) and fundamental identities, Functions in different quadrants, Domain and range.

PRACTICES:

- Perform basic algebraic simplifications and factorization.
- Solve linear and quadratic equations using different methods.
- Apply logarithmic properties to simplify expressions.
- Prove fundamental trigonometric identities.
- Plot and interpret trigonometric and algebraic functions.
- Apply trigonometry to model periodic events.
- Apply *Bhāskara II's Bijaganita* Techniques to Solve Quadratic Equations and Understand Geometric Roots.

MODULE-2

0L+12T+08P+0SL=20 Hours

UNIT-1

PERMUTATIONS AND COMBINATIONS:

Basic counting techniques, Definition and properties of factorial n ($n!$), Simple permutations and combinations.

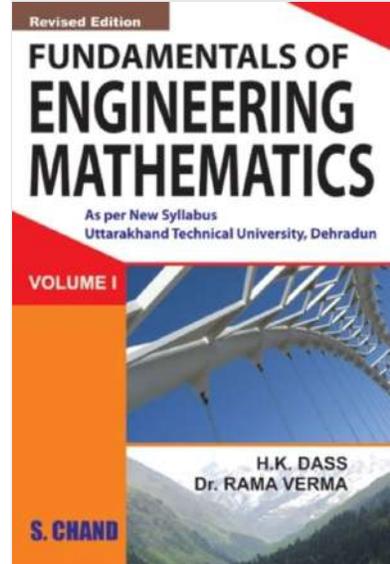


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SKILLS:

- ✓ *Mathematical problem-solving.*
- ✓ *Application of algebraic and geometric principles.*
- ✓ *Graphical representation and analysis.*
- ✓ *Logical reasoning and decision-making.*

UNIT-2**COORDINATE GEOMETRY:**

Cartesian plane, Plotting points. Finding distance between two points, Division of a line segment, Concept of slope, Area and perimeter of some basic geometrical figures.

UNIT-3**STRAIGHT LINES AND APPLICATIONS:**

Different forms of equations of a line (parallel to axes, slope-intercept and intercept forms), Conditions for parallel and perpendicular lines, Angle between two lines.

PRACTICES:

- Solve problems involving permutations and combinations.
- Calculate distances, midpoints and slopes in the Cartesian plane.
- Determine equations of lines under different conditions.
- Solve geometric problems involving straight lines.
- Apply learned concepts to engineering and practical scenarios.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Solve algebraic equations and expressions efficiently.	Apply	1, 2
2	Use coordinate geometry concepts to analyze geometric figures.	Apply	3, 5
3	Apply trigonometric identities to model real-world problems.	Apply	1, 2
4	Analyze permutations and combinations for decision-making problems.	Analyze	2, 10
5	Derive and apply equations of straight lines in different scenarios.	Analyze	3, 5

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS) :**TEXT BOOKS:**

1. B.S. Grewal, "Higher Engineering Mathematics", Khanna Publishers, 44th Edition, 2017.
2. Erwin Kreyszig, "Advanced Engineering Mathematics", John Wiley & Sons, 10th Edition, 2011.

REFERENCE BOOKS:

1. R.K. Jain, S.R.K. Iyengar, "Advanced Engineering Mathematics", Narosa Publishing, 5th Edition, 2016.
2. H.K. Dass, "Advanced Engineering Mathematics", S. Chand Publishing, 28th Edition, 2018.
3. M.D. Greenberg, "Advanced Engineering Mathematics", Pearson Education, 2nd Edition, 1998.

22EN101 ENGLISH LANGUAGE AND COMMUNICATION

Hours Per Week :

L	T	P	SL	C
0	3	2	0	1

PREREQUISITE KNOWLEDGE: Basic proficiency in English (A1-A2 level), with the ability to understand and participate in simple conversations and write short texts.

COURSE DESCRIPTION AND OBJECTIVES:

This course is designed to strengthen intermediate language skills, focusing on improved fluency, vocabulary expansion, grammatical accuracy, and effective communication in academic, social, and professional settings. The course prepares learners for B1 level proficiency, enabling them to handle a wider range of communication tasks.

MODULE-1

0L + 6T + 4P + 0SL = 10 Hours

UNIT-1

ENHANCING EVERYDAY COMMUNICATION:

- **Reading:** Interpreting short articles, messages, and dialogues with implied meanings.
- **Writing:** Completing guided writing tasks such as formal requests and informal responses.
- **Listening:** Understanding longer conversations and identifying tone and purpose.
- **Speaking:** Describing routines, experiences, and making comparisons using various tenses.

UNIT-2

SOCIAL INTERACTIONS AND OPINIONS:

- **Reading:** Understanding text structures and making inferences.
- **Writing:** Correcting and rewriting passages with grammatical errors.
- **Listening:** Extracting specific and general information from monologues.
- **Speaking:** Expressing personal opinions with justifications in short discussions.

PRACTICES MAPPED WITH IKS:

- Reading emails, blogs, and notices with detailed comprehension: **Script styles from palm leaf manuscripts.**
- Listening to authentic audio clips and identifying perspectives: **Oral transmission techniques.**
- Engaging in pair and group discussions on daily topics: **Community storytelling/council culture.**
- Writing short reports and summaries: **Panchayat records and administrative logs.**

MODULE-2

0L+12T+08P+0SL=20 Hours

UNIT-1

EXPRESSING THOUGHTS AND OPINIONS:

- **Reading:** Analyzing articles and opinion pieces.
- **Writing:** Writing coherent paragraphs expressing opinions.
- **Listening:** Listening to debates and identifying arguments.
- **Speaking:** Participating in structured group discussions on likes/dislikes and choices.

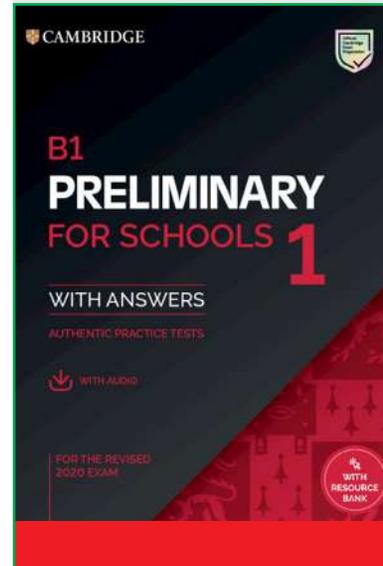


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SKILLS:

- ✓ *Receptive Skills – Reading and Listening.*
- ✓ *Productive Skills – Writing and Speaking.*
- ✓ *Public Speaking –Presentation.*

UNIT-2**GOALS, ASPIRATIONS, AND PERSONAL DEVELOPMENT:**

- **Reading:** Understanding and summarizing goal-setting articles.
- **Writing:** Writing short essays on career plans.
- **Listening:** Comprehending longer audio clips related to personal stories and achievements.
- **Speaking:** Delivering short talks on aspirations and future plans.

UNIT-3**RELATIONSHIPS AND IDENTITY:**

- **Reading:** Understanding and analyzing email correspondence.
- **Writing:** Writing formal and informal emails and messages.
- **Listening:** Listening for relationship dynamics and speaker attitude.
- **Speaking:** Giving presentations on personal relationships and milestones.

PRACTICES MAPPED WITH IKS:

- Reading narratives and informative texts: ***Panchatantra, Jataka tales.***
- Listening to podcasts and interviews: ***Oral tradition in storytelling, folk wisdom.***
- Writing structured essays and reflections: ***Spiritual reflection in Indian philosophy.***
- Role-playing interviews and discussions: ***Courtroom and sabha simulations.***

COURSE OUTCOMES:

Upon successful completion of this course, students will be able to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Interpret intermediate-level texts, including articles, blogs, and personal communications.	Apply	6,7,8,9,11
2	Write structured content such as essays, formal emails, and descriptive paragraphs.	Apply	6,7,8,9,11
3	Analyze speaker's intent, tone, and point of view in spoken texts.	Analyze	6,7,8,9,11
4	Evaluate and present arguments with clarity and coherence.	Evaluate	6,7,8,9,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS) :**TEXT BOOKS:**

1. B1 Preliminary for Schools – Student's Book by Cambridge University Press, 2020.
Aligned with B1-B2 level learners, this textbook provides comprehensive practice in all four skills using real-world contexts.

REFERENCE BOOKS:

1. B1 Preliminary for Schools Trainer (Six Practice Tests) – Cambridge University Press, 2020.
Includes exam-style tasks, strategies, and explanations to build confidence and fluency.

2. English Grammar in Use (Intermediate) by Raymond Murphy – Cambridge University Press.
Self-study grammar book with clear explanations and practice exercises, suitable for B1–B2 learners.
3. Write & Improve – [Cambridge Write & Improve online tool](#).
An interactive writing platform providing real-time feedback to enhance writing skills.
4. BBC Learning English – Intermediate Section – BBC Learning English.
Free listening, vocabulary, and grammar materials tailored for intermediate learners.
5. Cambridge English Online Dictionary and Thesaurus – <https://dictionary.cambridge.org>
Useful for building vocabulary and understanding word usage with examples.

22TP101 FOUNDATIONS OF QUANTITATIVE APTITUDE AND LOGICAL REASONING

Hours Per Week :

L	T	P	SL	C
0	5	0	0	1

PREREQUISITE KNOWLEDGE: Basic Mathematics Proficiency.

COURSE DESCRIPTION AND OBJECTIVES:

The “Foundation to Intermediate Quantitative Aptitude & Logical Reasoning” course is designed to develop both foundational and advanced skills in arithmetic, data interpretation, puzzles, and logical reasoning. By incorporating hands-on problem-solving exercises, strategic thinking, and time management techniques, the course enhances critical thinking and systematic problem-solving abilities. It equips students with the tools to tackle complex challenges efficiently, improve speed and accuracy, and prepare effectively for competitive exams, placements, and professional tasks.

MODULE-1

0L+10T+0P+0SL=10 Hours

UNIT-1

QUANTITATIVE APTITUDE 1:

Understanding Numbers and Their Types, Finding Common Multiples and Divisors, Percentages and Their Applications of Ratios and Proportions.

UNIT-2

QUANTITATIVE APTITUDE 2:

Calculating Profit, Loss, and Discount, Finding Averages and Solving Mixture Problems, Calculating Simple and Compound Interest, Time and Work Problems.

PRACTICES:

- Each concept would be taught in detail in the class.
- Followed by 10 problems solved in the class.
- Timer based questions solving during class room practice.
- Students would have to solve 10 additional problems as homework assignment in each concept.

MODULE-2

0L+20T+0P+0SL=20 Hours

UNIT-1

QUANTITATIVE APTITUDE 3:

Problems on Time and Distance, Average Speed, Relative Speed and its application on Trains Ages related with Ratios, Introduction to Permutations and Combinations, Probability Problems.

UNIT-2

LOGICAL REASONING 1:

Finding Patterns in Number Series, Identifying Patterns in Letter Sequences, Letter and Number Analogies, Identifying the Odd One Out with multiple categories, Decoding different coded patterns, Syllogism Problems with Venn diagrams.

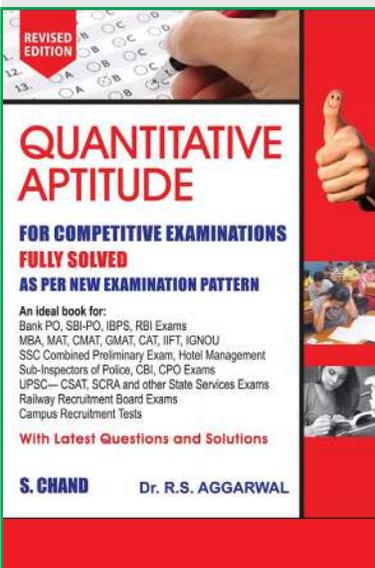


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UNIT-3**LOGICAL REASONING 2:**

Puzzles involving Seating related problems, Blood Relations with Family Trees, Solving Problems on Directions, Order and Ranking Problems with multiple criteria, Solving Seating Arrangement Problems, Problems involving Days, Dates in Calendars and Finding different angles in Clocks.

PRACTICES:

- Each concept would be taught in detail in the class.
- Followed by 10 problems solved in the class.
- Timer based questions solving during class room practice.
- Students would have to solve 10 additional problems as homework assignment in each concept.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Develop foundational skills in arithmetic, algebra, and equations for effective problem-solving.	Apply	1, 5
2	Enhance data interpretation accuracy for graphs and charts.	Analyze	1, 4, 5
3	Build confidence and expertise for aptitude tests and professional exams.	Evaluate	2, 5
4	Master time-efficient problem-solving techniques and systematic approaches to tackle complex challenges.	Create	1, 3, 5
5	Strengthen logical reasoning to solve puzzles, sequences, and arrangements efficiently.	Analyze	2, 6, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs):**TEXT BOOKS:**

1. R. S. Aggarwal - Quantitative Aptitude for Competitive Examinations - S.Chand Publications - Edition-2023.
2. R. S. Aggarwal - A Modern Approach to Logical Reasoning - S.Chand Publications - Edition-2022.

REFERENCE BOOKS:

1. Trishna Knowledge Systems- Quantitative Aptitude for Competitive Examinations - Pearson Publication - First Edition-2013.
2. R. S. Aggarwal - A Modern Approach to Verbal & Non-Verbal Reasoning - S.Chand Publication - Revised Edition-2018.
3. B.S. Sijwali & S. Sijwali - A New Approach to Reasoning - Arihant Publication - Edition-2018.

SKILLS:

- ✓ Develop the ability to analyze problems logically and derive effective solutions.
- ✓ Master calculations and numerical reasoning for tackling arithmetic and algebraic challenges.
- ✓ Gain proficiency in interpreting and analyzing data through charts, graphs, and tables.
- ✓ Enhance skills in pattern recognition, critical thinking, and solving puzzles.
- ✓ Learn strategies to solve problems quickly and efficiently within time constraints.

22AM101 IT TOOLS

Hours Per Week :

L	T	P	SL	C
0	0	5	0	1

PREREQUISITE KNOWLEDGE: Nil**COURSE DESCRIPTION AND OBJECTIVES:**

- Equip students with practical knowledge and skills in using essential IT tools such as:
 - Microsoft Word, Excel, and PowerPoint.
 - LaTeX for professional document preparation.
- Enable students to apply these tools in academic, personal, and professional.

MODULE-1**0L+0T+10P+0SL=10 Hours****UNIT-1****WORD:**

- Create a table of student marks with subjects, apply shading, change border styles, and align text.
- Create a form letter for a notice and use Mail Merge to send it to a list of student names and roll numbers.
- Design a basic resume with sections for personal info, education, skills, and interests. Use bullet points, alignment, and simple borders.
- Create a 2-column newsletter layout with headers, images, text boxes, and WordArt.
- Create a content index at the top of the page. Add hyperlinks or bookmarks to navigate to each section.
- Create a brochure for a 2-day academic conference with schedule, keynote speakers, and contact info using creative layout and styles.

UNIT-2**EXCEL:**

- Format a student mark sheet with at least 5 subjects and calculate total and average.
- Create a payroll system in Excel for 5 employees given Basic salary, 40% for D.A; 12% for HRA; 10% for TA; 10% for CCA; 12% for PF; IT 10%. Calculate the gross and net salary.
- Use SUM, AVERAGE, MIN, MAX functions on sales data for five products across 6 months.
- Use an IF function to assign "Pass" or "Fail" based on marks (>35).
- Create a bar chart comparing quarterly sales across different regions.

MODULE-2**0L+0T+18P+0SL=18 Hours****UNIT - 1****ADVANCED EXCEL:**

- Highlight all cells in a sales column that are above ₹50,000 using conditional formatting.
- Sort employee records by department and filter to show only those with experience > 5 years.
- Use a Pivot Table to summarize sales by product and region.
- Create an employee lookup sheet where entering an Employee ID returns name, department, and salary.
- Build a monthly attendance sheet for a class, calculate attendance percentage, and highlight students below 75%.
- Develop an EMI calculator that takes principal, interest rate, and tenure to calculate monthly payments.

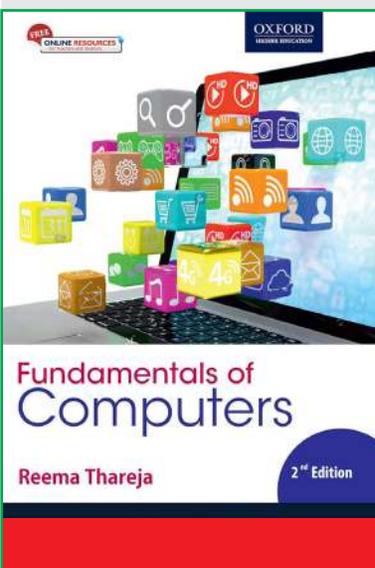


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UNIT-2**POWERPOINT:**

- Create a 5-slide presentation introducing yourself—name, interests, hobbies, and goals. Apply different slide layouts and basic transitions.
- Create a 3-slide presentation on your favourite place. Include images, shapes, and text boxes, and use picture styles.
- Create a presentation showing sales data. Insert a table and a chart (bar/pie) to visualize the data.
- Use Slide Master to create a consistent design for all slides (e.g., university (VFSTR) logo in header/footer and common font styling).
- Create a presentation containing an embedded video or audio clip, and set it to play automatically.

UNIT-3**LATEX:**

- Create a LaTeX document with a title, author, and date. Include two paragraphs and a section heading.
- Demonstrate text formatting by creating a paragraph using bold, italic, underline, and monospace fonts.
- Create a bulleted list of at least 3 hobbies and a numbered list of your top 3 goals.
- Write the quadratic formula and a few basic math expressions such as fractions, exponents, and square roots.
- Insert an image of your choice (e.g., example-image.jpg) into a document and add a caption below it.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Create word documents, presentations and spread sheets by applying various tools	Apply	2,5
2	Usage of latex tool for report writing	Apply	5,6

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) :**TEXT BOOKS:**

1. Fundamentals of Computers by Reema Thareja, Oxford University Press 2nd edition 2019, India.
2. Lamport, Leslie (1994). LaTeX: A Document Preparation System, User's Guide and Reference Manual (2nd ed.). Pearson Education.
3. LaTeX: A Document Preparation System by Leslie Lamport.

REFERENCE BOOKS:

1. John Walkenbach, Herb Tyson, Michael R.Groh and FaitheWempen, "Microsoft Office 2010 Bible", Wiley.

SKILLS:

- ✓ Formatting, document design, resume & letter writing, mail merge.
- ✓ Data entry, formulas, payroll systems, pivot tables.
- ✓ Slide creation, use of multimedia and animations.
- ✓ Posters, brochures, magazine cover creation.
- ✓ Basic webpage creation using hyperlinks and styles.
- ✓ Using Excel for formulas and data analysis.
- ✓ Document design and presentation delivery.
- ✓ LaTeX for academic and professional documents.

22SS104 STORIES OF INDIAN INDEPENDENCE

Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE: Basic understanding of Indian history at the high school level.

COURSE DESCRIPTION AND OBJECTIVES:

This course introduces students to the inspiring narratives of India's struggle for independence. It focuses not only on well-known leaders but also on forgotten heroes, movements, and lesser-known revolts that collectively shaped India's freedom story. The course aims to instill national pride, civic consciousness, and leadership qualities in students while strengthening their appreciation for democratic values and social responsibility.

MODULE-1

0L+12T+04P+0SL=12 Hours

UNIT-1

EARLY RESISTANCES AND UNSUNG HEROES:

Revolts Before 1857: Vellore Mutiny, Paika Rebellion, and Sanyasi-Fakir Rebellion; Revolt of 1857: Causes, Course, and Consequences; Tribal and Peasant Uprisings: Santhal Rebellion and Munda Ulgulan; Lesser-Known Freedom Fighters: Rani Gaidinliu; Veerapandiya Kattabomman, and Birsa Munda.

UNIT -2

PATHBREAKING MOVEMENTS AND LEADERS:

Formation of Indian National Congress and Early Nationalism; Swadeshi and Boycott Movements (1905); Role of Revolutionary Activities: Anushilan Samiti and Hindustan Socialist Republican Association; Transnational and Pan-Indian Movements: Ghadar Movement and Khilafat Movement (Ali Brothers).

PRACTICES:

- Research and present a profile of a lesser-known freedom fighter featured in the unit.
- Prepare a comparative chart on the Revolt of 1857 and the Ghadar Movement.
- Participate in a debate or panel discussion on the role of religion and revolution in India's freedom struggle.
- Create a digital timeline covering key events from early revolts to transnational movements (1800–1920).

MODULE-2

0L+18T+0P+0SL=18 Hours

UNIT-1

MASS MOVEMENTS AND PEOPLE'S PARTICIPATION:

Non-Cooperation Movement (1920–22); Civil Disobedience Movement and Salt Satyagraha; Quit India Movement (1942): "Do or Die" Spirit; Role of Women and Students in the Freedom Struggle.

UNIT -2

VISIONARIES AND THEIR LEGACIES:

Mahatma Gandhi: Philosophy of Satyagraha and Ahimsa; Subhas Chandra Bose and INA; Bhagat Singh and Revolutionary Nationalism; Dr. B.R. Ambedkar and the Struggle for Social Justice.

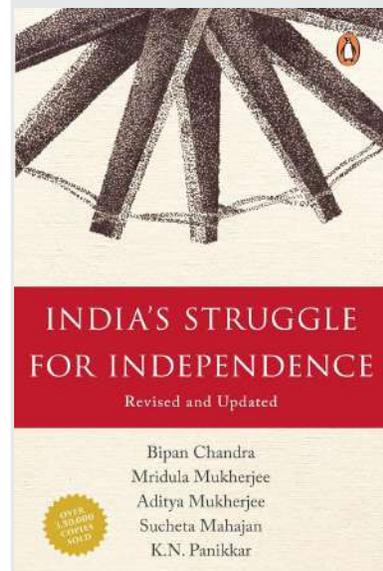


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SKILLS:

- ✓ *Leadership and teamwork by understanding collective struggles.*
- ✓ *Analytical skills through study of strategies and methods used in the freedom struggle.*
- ✓ *Communication skills via storytelling, debates, and presentations.*
- ✓ *Ethical thinking by appreciating sacrifice, social responsibility, and patriotism.*

UNIT - 3**TRANSITION TO INDEPENDENCE:**

The Cabinet Mission Plan and Negotiations; Partition and Independence: Causes and Consequences; Integration of Princely States: Sardar Patel's Role; Building a New Nation: Early Challenges.

PRACTICES:

- Group discussions on major movements.
- Role-play / dramatizations: Dandi March, INA Trials, Quit India Movement.
- Documentary review assignments: Freedom struggle films and documentaries.
- Quiz competitions on key events and leaders.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply knowledge of early revolts and lesser-known freedom fighters to understand regional contributions to India's independence.	Apply	6, 11
2	Analyze the development of nationalist ideologies and the role of revolutionary, religious, and transnational movements.	Analyze	6, 8, 9
3	Evaluate the contributions of women, students, and marginalized communities in shaping the mass movements of the freedom struggle.	Evaluate	6, 7, 11
4	Apply lessons of patriotism, leadership, and social responsibility to contemporary societal roles and ethical decision-making.	Apply	6, 7, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS) :**TEXT BOOKS:**

1. Bipin Chandra, *India's Struggle for Independence*, Penguin, 2016.
2. Sekhar Bandyopadhyay, *From Plassey to Partition and After: A History of Modern India*, Orient Blackswan, 2014 (Reprint Edition).

REFERENCE BOOKS:

1. Ramachandra Guha, *Gandhi: The Years That Changed the World*, Penguin, 2018.
2. Sugata Bose, *His Majesty's Opponent: Subhas Chandra Bose and India's Struggle against Empire*, Harvard University Press, 2011.
3. S. Gopal, *Jawaharlal Nehru: A Biography*, Harvard University Press.

22EN102 UNIVERSAL HUMAN VALUES

Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE: Nil

PREREQUISITE KNOWLEDGE:

UHV (Universal Human Values) doesn't necessarily require specific prerequisite knowledge. It's designed to be accessible for students with various backgrounds. However, there are some foundational concepts like 'Basic understanding of ethics, Openness to different perspectives, Ability for critical thinking' might be helpful.

COURSE DESCRIPTION AND OBJECTIVE:

This course helps the students to appreciate the essential complementarity between 'Values' and 'Skills' to ensure sustained happiness and prosperity which are the core aspirations of all human beings. It also helps to develop students' holistic perspective based on self-exploration about themselves (human being) and their family. It further touches issues very briefly related to their role in the society and the nature.

MODULE-1

0L+16T+0P+2SL=16 Hours

UNIT-1

INTRODUCTION TO VALUE EDUCATION:

Right Understanding, Relationship and Physical Facility (Holistic Development and the Role of Education) Understanding Value Education, (**concept of Dharmasastra**) self-exploration as the Process for Value Education, Continuous Happiness and Prosperity – the Basic Human aspirations. Happiness and Prosperity – Current Scenario.

UNIT-2

HARMONY IN THE HUMAN BEING:

Understanding Human being as the Co-existence of the Self and the Body -Distinguishing between the Needs of the Self and the Body- The Body as an Instrument of the Self- Understanding Harmony in the Self- Harmony of the Self with the Body (**Concept of Sanyam**) - Programme to ensure self-regulation and Health.

PRACTICES:

- Sharing about Oneself.
- Talk on Everyday life situation.
- Reflect on what she/he would do in this situation.
- Exploring Natural Acceptance.

MODULE-2

0L+18T+0P+0SL=18 Hours

UNIT-1

HARMONY IN THE FAMILY AND SOCIETY:

Harmony in the Family – the Basic Unit of Human Interaction-'Trust' – the Foundational Value in Relationship, 'Respect and Excellence' – as the Right Evaluation, Other Feelings, Justice in Human-to- Human Relationship, Understanding Harmony in the Society (**Concept of Nyaya**).

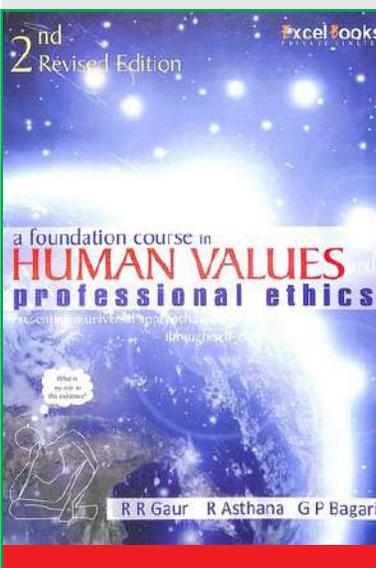


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UNIT-2**HARMONY IN THE NATURE/EXISTENCE:**

Harmony in the Nature- Interconnectedness, self-regulation and Mutual Fulfilment among the Four Orders of Nature- Realizing Existence as Co-existence at All Levels- The Holistic Perception of Harmony in Existence (**Concept of Pancha Mahabhuta**).

UNIT-3**IMPLICATIONS OF THE HOLISTIC UNDERSTANDING – A LOOK AT PROFESSIONAL ETHICS:**

Natural Acceptance of Human Values- Definitiveness of (Ethical) Human Conduct- Competence in Professional Ethics-: Holistic Technologies, Production Systems and Management Models- Typical Case Studies- Strategies for Transition towards Value-based Life and Profession (Concept of Universal Human Values).

PRACTICES:

- Consider the potential consequences of each option (returning vs. keeping).
- Case studies: Analyze real-world examples.
- Group discussions: Sharing perspectives and learn from others' experiences.
- Role-play scenarios to navigate conflict resolution and promote healthy interaction.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply the essentials of human values and skills, self-exploration, happiness and prosperity.	Apply	7,8,9,10
2	Apply to self-regarding the coexistence of the "I" with the body.	Apply	7,8,9,10
3	Identify and evaluate the role of harmony in family, society and universal order.	Evaluate	7,8,9,10
4	Analyze the holistic perception of harmony at all levels of existence.	Analyze	7,8,9,10
5	Develop appropriate technologies and management patterns to create harmony in professional and personal life.	Create	7,8,9,10

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS) :**TEXT BOOK:**

1. R R Gaur, R Sangal, G P Bagaria, "Human Values and Professional Ethics", Excel Books, New Delhi, 2010.

REFERENCE BOOKS:

1. A.N. Tripathi, "Human Values", New Age Intl. Publishers, New Delhi, 2004.
2. Gergen, K. J. "Relational Being: Beyond Self and Community", United Kingdom: Oxford University, Press, 2009.
3. A Nagraj, "Jeevan Vidya ek Parichay", Divya Path Sansthan, Amarkantak", 1998.
4. E.F. Schumacher, "Small is Beautiful: a study of economics as if people mattered, Blond & Briggs, Britain" 1973.
5. R R Gaur, R Sangal, G P Bagaria, "A Foundation Course in Human Values and Professional Ethics", 2009.

I YEAR

B.Tech.

COURSE CONTENTS (BiPC STREAM)

▶	22MT104	- Elementary Mathematics
▶	22MT106	- Matrices and Ordinary Differential Equations
□	22PY102	- Applied Physics
▶	22CT103	- Organic Chemistry
▶	22EE102	- Fundamentals of Electrical and Electronics Engineering
▶	22ME101	- Engineering Drawing
▶	22CS101	- Programming in C
▶	22EN103	- English Proficiency and Communication Skills
▶	22CT101	- Environmental Studies
▶	22MS101	- Management Studies
▶	22CS102	- Problem Solving through Python
▶	22EN104	- Technical English Communication
▶	22CY101	- Cyber Security
▶	22SS101	- Constitution of India
▶	22SA103	- Physical fitness
▶	22SA104	- Life Skills
▶	22SA102	- Self-understanding and Gender Sensitization
▶	22SS102	- Indian Knowledge Systems
▶	22SS103	- Indian Culture and Heritage
▶	22SS105	- Gerontology
	22ME102	- Do it yourself

22MT104 ELEMENTARY MATHEMATICS

Hours Per Week :

L	T	P	SL	C
3	2	0	3	4

PREREQUISITE KNOWLEDGE: Basics of Geometry and Algebra.**COURSE DESCRIPTION AND OBJECTIVES:**

This course introduces fundamental concepts in set theory, mathematical progressions, trigonometry, calculus (limits, derivatives and integrals) and their applications. It aims to strengthen students' analytical and problem-solving skills, serving as a foundation for advanced engineering mathematics

MODULE-1**UNIT-1****18L+12T+0P+18SL = 48 Hours****SET THEORY:**

Definition and representation of sets, Cardinality of a set, Finite and infinite sets, Operations on sets, Venn diagram.

Relations, Types of relations, Functions, Types of functions, Even and odd functions.

UNIT-2**MATHEMATICAL PROGRESSIONS AND TRIGONOMETRY:**

Arithmetic progression, Geometric progression, Harmonic progression and their means.

Trigonometric ratios, Compound angles, Multiple and sub-multiple angles.

PRACTICES:

- Solve set operations and find the cardinality of given sets.
- Verify reflexivity, symmetry and transitivity of relations.
- Determine even and odd functions graphically and analytically.
- Finding the general term and sum of infinite terms of progression.
- Solve trigonometric identities and compute angles in different quadrants.
- Evaluation of Trigonometric function.
- Use **Panini's Ashtadhyayi** Structure to Understand Functions and Rule-Based Mathematical Transformations.

MODULE-2**UNIT-1****27L+18T+0P+27SL = 72 Hours****LIMITS AND CONTINUITY:**

Limit of a function, Properties, One sided limit.

Continuity, Properties, Intermediate value theorem and its application in root findings.

UNIT-2**DIFFERENTIATIONS:**

Introduction, Derivatives of elementary functions, Sum rule, Product rule, Quotient rule, Higher Order Derivatives.

Applications: Velocity and Acceleration, Increasing and Decreasing Functions, Maxima and Minima.

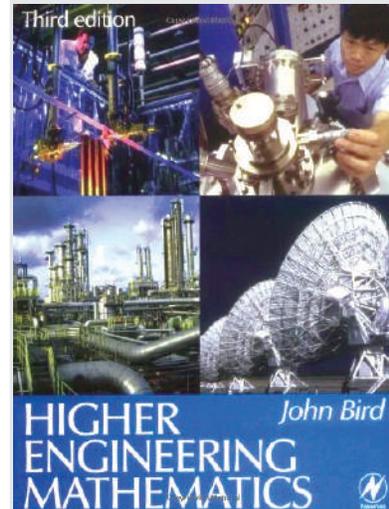


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SKILLS:

- ✓ Apply the dynamics of Light to realize the various potential applications in Engineering.
- ✓ Evaluate the concepts of Lasers and Optical Fibers to realize versatile applications in Science, Engineering and Technology.
- ✓ Analyze the Crystal Structures and orientation of planes.
- ✓ Appraise the importance of Ultrasonics in medicine.
- ✓ Demonstrate the synthesis and characterization of Nano materials in view of their applications.

UNIT-3**INTEGRATIONS:**

Integrations of elementary functions, Methods of integration: substitution, by parts and partial fractions, Definite integration.

Applications: Area under a Curve, Area between two Curves.

PRACTICES:

- Solve problems involving derivatives using the sum, product and quotient rules.
- Calculate points of maxima or minima for given curves.
- Evaluate integrals using substitution, partial fractions and by-parts methods.
- Find areas under curves and between intersecting curves.

COURSE OUTCOMES:

Upon successful completion of this course, students will be able to:

CO No.	Course Outcomes	Bloom's Level	Mapping with POs
1	Understand and apply fundamental concepts of set theory and functions.	Apply	1, 2
2	Analyze mathematical sequences and apply trigonometric identities.	Analyze, Apply	1, 2
3	Evaluate limits and test continuity of functions using standard techniques.	Evaluate	1
4	Compute derivatives and apply them to real-world problems involving rates.	Apply, Analyze	1, 2, 4
5	Perform integration using various methods and apply them to area problems.	Apply, Evaluate	1, 2

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXT BOOKS:**

1. John Bird, "Higher Engineering Mathematics", 5th Edition, Routledge (Taylor and Francis Group), New York, 2018.
2. Kanti B. Datta, Varma, P. Sekhar, "Calculus, Linear Algebra and Ordinary Differential Equations", Cengage Learning, 1st Edition, 2024

REFERENCE BOOKS:

1. B.S. Grewal, "Higher Engineering Mathematics", 44th Edition, Khanna Publishers, New Delhi, 2017.
2. Veerarajan, T., "Engineering Mathematics", 1st Edition, Tata McGraw Hill Publishing Co., New Delhi, 2019.
3. Venkataraman M. K., "Engineering Mathematics – First Year", 2nd Edition, National Publishing Co., Chennai, 2000.

22MT106 MATRICES AND ORDINARY DIFFERENTIAL EQUATIONS

Hours Per Week :

L	T	P	SL	C
3	2	0	3	4

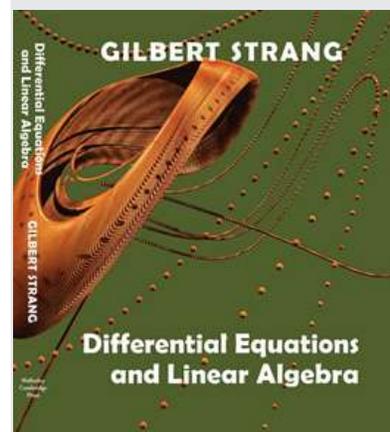


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PREREQUISITE KNOWLEDGE: Basics of Algebra and Calculus.

COURSE DESCRIPTION AND OBJECTIVES:

This course aims to equip students with foundational concepts of matrices and ordinary differential equations (ODEs). Students will learn matrix operations, eigenvalues and eigenvectors, as well as solving and applying first-order and second-order ODEs to real-world problems.

MODULE-1

UNIT-1

18L+12T+0P+18SL = 48 Hours

MATRICES AND DETERMINANTS:

Introduction to matrices, Types of matrices, Algebra of matrices, Determinant and its properties, Adjoint of a matrix, Inverse of a matrix through adjoint.

Elementary row and column operations, Echelon form, Row reduced echelon form, Rank of a matrix, Inverse of a matrix by Gauss-Jordan method.

UNIT-2

SYSTEMS OF LINEAR EQUATIONS:

Homogeneous and non-homogeneous systems of linear equations, matrix representation of linear systems, Consistency using rank of the coefficient matrix, Solution of systems of linear equations: Gauss elimination method, Gauss-Jordan method.

PRACTICES:

- Find inverse of a matrix using adjoint and elementary operations.
- Find rank of a matrix.
- Check consistency of a system of linear equations.
- Solve linear systems using Gauss elimination and Gauss-Jordan methods.
- Solve systems of linear equations using the **Pāñcarātra Nyāya** (Five-step logical method) and compare with Gauss Elimination. Reflect on structured reasoning in Indian Knowledge Systems.

MODULE-2

UNIT-1

27L+18T+0P+27SL = 72 hours

EIGENVALUES AND EIGENVECTORS:

Eigenvalues and eigenvectors (up to 3×3 matrices only), Properties, Cayley-Hamilton theorem (without proof) and verification, Inverse of a matrix by CHT.

UNIT-2

FIRST ORDER ORDINARY DIFFERENTIAL EQUATIONS:

Introduction, Order and degree, Formation of ODE from a given one-parameter family of curves, Solutions: Variable separable method, homogeneous, equation reducible to variable separable type, linear and Bernoulli's equations.

SKILLS:

- ✓ Problem-solving with linear algebra techniques.
- ✓ Analytical thinking in modeling physical systems with ODEs.
- ✓ Application of mathematical concepts to real-world engineering scenarios.

Applications: Newton's law of cooling, Natural growth and decay.

UNIT-3**SECOND ORDER ORDINARY DIFFERENTIAL EQUATIONS:**

Homogeneous and non-homogeneous equations, Complementary functions, Particular integrals, Solution with constant coefficients: method of undetermined coefficients, variation of parameters.

PRACTICES:

- Compute eigenvalues and eigenvectors for given matrices.
- Verify Cayley-Hamilton theorem for small matrices.
- Find inverse using Cayley-Hamilton theorem.
- Find general and particular solutions of first and second-order ODEs.
- Apply differential equations to model and solve real-life problems.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply matrix operations, including determinant, inverse and rank, to solve engineering problems.	Apply	1, 2, 5
2	Compute eigenvalues and eigenvectors and apply the Cayley-Hamilton theorem in matrix applications.	Analyze	1, 2, 5
3	Solve first-order ODEs using analytical methods and apply them to engineering problems.	Apply	1, 3, 4, 5
4	Solve second-order ODEs and evaluate their applications in physical and engineering systems.	Evaluate	1, 3, 4, 6
5	Use mathematical techniques to model real-world scenarios using matrices and ODEs.	Create	1, 2, 4, 6, 10, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXT BOOKS:**

1. B.S. Grewal, "Higher Engineering Mathematics", 44th Edition, Khanna Publishers, New Delhi, 2017.
2. Kanti B Datta, Varma, P Sekhar, "Calculus, Linear Algebra and Ordinary Differential Equations", 1st Edition, Cengage Learning, 2024.

REFERENCE BOOKS:

1. Erwin Kreyszig, "Advanced Engineering Mathematics", 10th Edition, Wiley, 2011.
2. H.K. Dass, "Advanced Engineering Mathematics", S. Chand & Company Ltd., 2014.
3. David C. Lay, "Linear Algebra and Its Applications", 5th Edition, Pearson, 2015.

22PY102 APPLIED PHYSICS

Hours Per Week :

L	T	P	SL	C
3	0	2	3	4

PREREQUISITE KNOWLEDGE: Basics of calculus, Atomic structure and fundamentals of semiconductors.

COURSE DESCRIPTION AND OBJECTIVES:

This course identifies the principles of fluid mechanics and apply them in engineering applications. It provides in-depth understanding of the fundamental concepts of Quantum Mechanics. It emphasizes on the principles and applications of nanomaterials as relevant to an engineer. It enunciates the concurrent understanding of lasers and optical fibers in latest technology developments.

MODULE-1**UNIT-1****18L+0T+12P+18SL = 48 Hours****INTRODUCTION TO FLUID MECHANICS:**

Properties of fluids-types of fluid flows, Basic fluid statics and pressure distribution, Bernoulli's principle. Fluid Dynamics: Nature of fluids, Newton's law of viscosity, Concept of Newtonian and Non-Newtonian fluids, Boundary layer formation and separation- Reynold's number and flow classification- Navier stokes equation (Qualitative), Continuity equation and conservation laws, Dimensional analysis and scaling.

UNIT-2**INTRODUCTION TO QUANTUM MECHANICS:**

Introduction to Quantum Mechanics, Concept of wave and particle duality of radiation, de Broglie's concept of matter waves, Schrödinger's time-independent wave equation, Eigen values and Eigen functions, Particle confined in a one-dimensional infinite potential well, Finite potential well, Quantum Tunneling: Scanning tunneling microscope. *Kanada's atomic theory (paramanu)*

PRACTICES:

- Measurement of the discharge through a Venturimeter.
- Bernoulli's Apparatus: To verify Bernoulli's theorem.
- Planck's constant: Determination of stopping potential to evaluate the Planck's constant by photoelectric effect method.
- Determination of the Reynolds number.
- SEEBECK effect.

MODULE-2**UNIT-1****27L+0T+18P+27SL = 72 Hours****ELEMENTS OF NANOMATERIALS:**

Introduction, Principles of nanomaterials; Synthesis of nanomaterials, Top- down and bottom-up approaches, Sputtering method, Sol-Gel method, Physical and chemical properties of nanomaterials, Medical applications of nanomaterials.

UNIT-2**LASERS:**

Introduction, Spontaneous and stimulated emissions, Einstein coefficients, Population inversion and pumping processes, He-Ne laser and Nd-YAG laser; Applications of lasers in medical field (LASIK surgery and Cancer treatment), Implications of lasers. *vahamihira's optics.*

UNIT-3**FIBRE OPTICS:**

Introduction, Principle of optical fibers, Acceptance angle and numerical aperture, Types of optical fibers, Step index fibers and graded index fibers, Losses in optical fibers (qualitative); Applications of optical

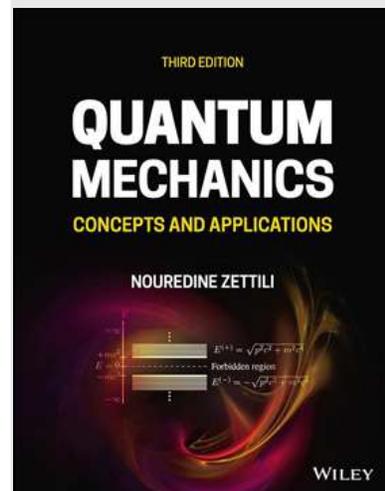


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SKILLS:

- ✓ Apply the dynamics of fluids to realize various potential applications in engineering.
- ✓ Apply the quantum laws to understand the microscopic systems.
- ✓ Demonstrate the synthesis and characterization of nanomaterials in view of their applications.
- ✓ Evaluate the concepts of lasers and optical fibers to realize versatile applications in Science, Engineering and Technology.

fibers (Endoscope and Biosensor), Food quality and safety monitoring. **Shulbasutras geometry**

PRACTICES:

- Laser: Determination of wavelength of a given laser source.
- Optical fiber: Determination of numerical aperture and acceptance of an optical fiber.
- Solar cell: Determination of efficiency of solar cell (Non relevant).
- Energy band gap of nanomaterials (DRS method).
- Synthesis of nanoparticles using Sol-Gel method.
- Synthesis of nanomaterials using Sputtering method.
- Determination of attenuation in Optical fiber.
- Determination of the slit width from Fraunhofer diffraction pattern using LASER beam.
- Demonstration of monochromatic nature of laser light comparing with ordinary light by the principle of dispersion using prism.

ACTIVITIES:

- Determination of the viscosity of a given biological fluid.
- Wave-particle duality demonstration using lasers.
- Synthesis of various nanomaterials.
- Determination wavelengths of different lasers.
- Evaluation of attenuation in optical fibers.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1.	Apply the principles of fluid mechanics and dynamics in biological systems.	Apply	1,2,3,4,5,9
2.	Apply the principles of quantum mechanics to unravel the latest technical developments.	Apply	1,2,3,4,8,9
3.	Evaluate the dimensions of nanoparticles to consolidate the physical and chemical aspects of nanomaterials.	Evaluate	1,2,3,4,5,6,9
4.	Analyze the wavelengths of Lasers and to realize their applications in modernistic technologies.	Analyze	11,2,3,4,5,8,9,11
5.	Recognize the versatility of optical fibers to perceive their applications in engineering.	Analyze	1,2,3,4,6,8,9

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOKS:**

1. N. Zettili, "Quantum Mechanics: Concepts and Applications", Wiley, 3rd Edition, 2022.
2. T. Pradeep, "A Text Book of Nanoscience and Nanotechnology", Tata McGraw Hill, 2012.

REFERENCE BOOKS:

1. D. Halliday, R. Resnick, J. Walker, "Fundamentals of Physics", John Wiley and Sons, 11th Edition 2018.
2. M.N.Avadhanulu, P.G.Kshirsagar, T.V.S. Aruen Murthy, "A Text Book of Engineering Physics", S. Chand & Company Ltd., 11th Edition 2019.
3. M. R. Srinivasan, "Engineering Physics", New Age International Publishers, 2nd Edition 2021.
4. A. Ghatak, "Optics", Tata McGraw Hill, 7th Edition, 2020.
5. Thamer A. Tabbakh, "Optical Fiber and Applications", IntechOpen, 2023.
6. Poonam Mishra, Partha Pratim Sahu, "Biosensors in Food Safety and Quality", CRC Press, 1st edition, 2022.
7. R. W. Fox, A. T. McDonald, Introduction to Fluid Mechanics, Wiley India Edition, John Wiley & Sons, 2015.

22CT103 ORGANIC CHEMISTRY

Hours Per Week :

L	T	P	SL	C
3	0	2	3	4

PREREQUISITE KNOWLEDGE: Intermediate level knowledge of chemistry**COURSE DESCRIPTION AND OBJECTIVES:**

This course is aimed at offering fundamental concepts of organic chemistry which will help to design and synthesize organic compounds and understand their properties. This course will make the student familiar with basic concepts of bonding, reaction intermediates and stereo chemical aspects applicable in synthetic organic chemistry and organic materials. As a first-level course for B. Tech. students with biology background, it will be a strong basis to understand advanced level mechanistic aspects of biochemical reactions and also synthesis of organic molecules with medicinal value.

MODULE-1**UNIT -1****18L+0T+12P+18SL = 48 Hours****CHEMICAL BONDING:**

Introduction to Lewis dot structures, VBT and VSEPR theory, Molecular Orbital (MO) theory, MO diagrams of N₂, O₂, CO, energy diagram of Ethylene.

UNIT-2**STEREOCHEMISTRY:**

Representations of 3-Dimensional structures; Structural isomers and Stereoisomers; Chirality, optical isomerism - Enantiomers – Lactic acid (*dahi*) and Diastereomers – Tartaric acid (*imli*); Absolute configurations (R/S); Conformational analysis – Ethane.

PRACTICES:

- Determination of melting point of organic compounds.
- Determination of boiling point of organic compounds.
- Separation of organic compounds by thin layer chromatography (TLC).
- Paper Chromatography for Identification of Amino acids from the mixture.
- Synthesis of Racemic BINOL using solvent free methods (Concept of atropisomerism).
- Relevance of stereochemistry in biology eg. Thalidomide.

MODULE-2**UNIT-1****27L+0T+18P+27SL = 72 Hours****REACTION INTERMEDIATES:**

Bond fissions, arrow-pushing for drawing mechanism, formation and reactivity of carbanions, carbocations, free radicals, carbenes (Aldol condensation, Friedel-Crafts Alkylation & Acylation, Halogenation of Methane, Reimann-Tiemann reaction).

UNIT-2**ORGANIC REACTIONS AND MECHANISM:**

Organic reactions: Mechanisms for substitution (SN1 vs SN2), addition (Electrophilic and Nucleophilic), Elimination (E1 and E2) reactions; Oxidation (Jones reagent) and reduction (LiAlH₄); Introduction to catalytic hydrogenation.

UNIT-3**STRUCTURAL ELUCIDATION OF ORGANIC COMPOUNDS:**

IR Spectroscopy: Introduction, principle, identification of functional groups.

NMR spectroscopy: Introduction, principle, chemical shift, H-NMR (Ethyl alcohol and other simple molecules).

Mass spectrometry: Introduction, principle, fragmentation of simple molecules (nitrogen rule).

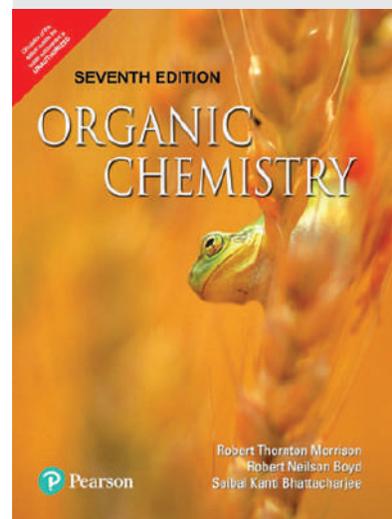


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SKILLS:

- ✓ Design a scheme for an organic reaction.
- ✓ Analyze complex problems and predict reaction outcomes.
- ✓ Identify the stereochemical feature of a molecule based on the structure.
- ✓ Choose the desired green solvent required for a reaction.
- ✓ Analyze the desired product, side product and impurities formed during the course of the reaction pathway.

PRACTICES:

- Preparation and characterization of Aspirin/Paracetamol using IR.
- Oxidation of an organic compound using Potassium Permanganate (KMnO₄).
- Reduction of aldehydes using Sodium Borohydride (NaBH₄).
- Estimation of the amount of glucose present in the given solution.
- Qualitative analysis of Phytochemicals - Alkaloids/Flavonoids.
- Preparation of dibenzal acetone.
- Analysis and characterisation of Functional groups – Carboxylic acids/ Carbonyl compounds / Amines.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply the theories of bonding to predict the formation of products in organic reactions.	Apply	1, 2, 7, 9, 11
2	Identify the stereochemical features of organic molecules and their importance of chirality with relevance to biological activity.	Analyze	1, 2, 3, 6, 7, 8, 9
3	Analyze the formation and reactivity of different reaction intermediates in organic reactions.	Analyze	1, 2, 3, 7, 8, 9, 11
4	Analyze various synthetic reactions for preparation of drug molecules.	Analyze	1, 2, 3, 6, 7, 8, 9, 11
5	Verify the structure of organic compound using the principles of instrumental techniques for structure determination.	Evaluate	1, 2, 4, 5, 8, 9, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXT BOOKS:**

1. Arun Bahl and B.S. Bahl, "Advanced Organic Chemistry", Fifth Edition, S. Chand & Co, 2015.
2. R.T. Morrison, R.M. Boyd and S.K. Bhattacharjee, "Organic Chemistry", 7th edition, Pearson Publications, 2018.

REFERENCE BOOKS:

1. P. Bruice, Organic Chemistry, Pearson Scientific Publications, 8th Edition. 2020.
2. J. David Rawn and Robert Ouellette, "Organic Chemistry: Structure, Mechanism, Synthesis", 2nd edition, Academic Press, 2018.
3. Graham Patrick, "A Very Short Introduction to Organic Chemistry", Oxford Publishers, 2017.
4. D.L. Pavia, G.M. Lampman, G.S. Kriz, R.G. Engel, A microscale approach to Organic Laboratory Techniques, 6th addition, Brooks/Cole, 2017.
5. Silverstein, Robert M. Bassler, G. Clayton Morrill and C. Terence, "Spectroscopic Identification of Organic Compounds", 8th Edition, John Wiley & Sons Inc, 2014.
6. J. Mendham, R. C. Denney, J.D. Bares, M. Thomas and B. Siva Sankar, "Vogel's Text book of qualitative Chemical Analysis", Pearson Publications - Volume I, 2009.
7. L. Finar, "Organic Chemistry", Vol-I, 6th edition, Longman Scientific Publications, 2006.
8. Vogel's Practical Organic chemistry. 5th edition, Pearson India, 2003.

22EE102 FUNDAMENTALS OF ELECTRICAL AND ELECTRONICS ENGINEERING

Hours Per Week :

L	T	P	SL	C
2	0	2	2	3

PREREQUISITE KNOWLEDGE: Basics of Physics.

COURSE DESCRIPTION AND OBJECTIVES:

This course provides an insight into the functioning of basic electrical components like resistor, inductor and capacitor. It deals with the constructional and operational details of static machines. It also deals with the basic electronic components like P-N junction diode, Zener diode.

MODULE-1

UNIT-1

12L+0T+12P+12SL = 36 Hours

Trigonometric Functions: Introduction to basic trigonometric functions.

Phasors: Phasor representation of sinusoidal voltage and current signals, Conversion of Polar to Rectangular form and Vice versa. Phasor diagrams and their interpretation. Phasor addition, subtraction, and multiplication. Conversion between phasor and time-domain representations.

Differentiation, Integration, and Applications: Basic concepts of calculus, Differentiation: Rates of change, derivatives of basic functions, Integration: Finding areas under curves, indefinite and definite integrals.

UNIT-2

FUNDAMENTALS OF ELECTRIC CIRCUITS:

Terminal characteristics of Active Elements (Ideal voltage, current source) and passive elements (Resistor, Inductor and Capacitor), Ohm's Law and Kirchhoff's Laws, Series and parallel circuits, Voltage and current division, Power and energy calculations, calculating areas of waveforms, finding total charge, energy and Power, Introduction to circuit analysis techniques (Mesh and Nodal analysis).

PRACTICES:

- Verification of Ohm's law.
- Verification of Kirchhoff's current law.
- Verification of Kirchhoff's voltage law.
- Measurement of power and Energy in resistive circuit.

MODULE-II

UNIT- 1

18L+0T+18P+18SL = 54 Hours

ANALYSIS OF AC CIRCUITS:

Generation of AC voltage, Frequency, Average value, R.M.S. value, Form factor, Peak factor for sinusoidal only; Analysis of single- phase ac circuits consisting of R, L, C, RL, RC (series and parallel).

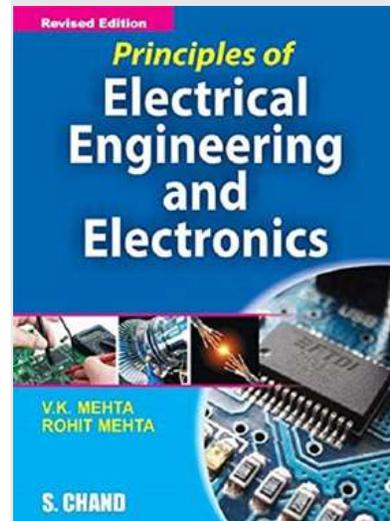


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UNIT-2**FUNDAMENTALS OF ELECTROMAGNETISM AND TRANSFORMERS:**

Magnetic circuits- Ohm's law in Magnetic circuit (Magnetic motive force, Reluctance and Flux), Analogy of Electrical and Magnetic circuits, Faraday's Law of Electromagnetism, Self and mutual inductances.

Principle of operation of single phase transformer, Constructional features, EMF equation (simple numerical problems).

UNIT- 3**SEMICONDUCTOR DEVICES:**

Classification of semiconductors, P-N junction diode -operation and its characteristics, Half wave rectifier - operation, efficiency; Full wave rectifiers -types, operation, efficiency; Zener diode and its characteristics, Zener diode as Voltage regulator.

PRACTICES:

- Determination of R.M.S. Values of sinusoidal waveform.
- Verification of PN junction diode characteristics under both forward and reverse bias.
- Verification of Zener diode characteristics under reverse bias.
- Transformation ratio of a single phase transformer at different loads.
- Determination of impedance in complex AC circuits.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Solve the AC and DC circuits using different methods.	Apply	1,2,9,11
2	Analyze the resistive circuits with independent sources and find its solution.	Analyze	1,2,6,9
3	Examine the different electrical equipment.	Evaluate	1,2,9,11
4	Acquire the knowledge of semiconductor devices to create circuits.	Create	1,2,3,9,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS):**TEXTBOOKS:**

1. V. K. Mehta, "Principles of Electrical Engineering and Electronics", S. Chand & Co., Publications, New Delhi, 2019.
2. Anthony Croft and Robert Davison, "Mathematics for Engineers: A Modern Interactive Approach," Pearson/Prentice Hall, 2008.

REFERENCE BOOKS:

1. Millman and Halkias, "Electronic Devices and Circuits", Mc Graw Hill, 2006.
2. D.P. Kothari, "Basic Electrical and Electronics Engineering", TMH, New Delhi, 2017.

22ME101 ENGINEERING DRAWING

Hours Per Week :

L	T	P	SL	C
2	0	2	2	3

PREREQUISITE KNOWLEDGE: Basics of Geometry.**COURSE DESCRIPTION AND OBJECTIVES:**

This course provides a foundational understanding of engineering drawing, focusing on basic projections, dimensioning, and reading technical drawings relevant across various engineering disciplines. The objective is to equip learners with essential skills to visualize, interpret, and communicate design ideas effectively using standard drawing practices.

MODULE-1**UNIT-1****12L+0T+12P+12SL = 36 Hours****GEOMETRICAL CONSTRUCTIONS AND CONICAL CURVES:**

Introduction: Lettering and Dimensioning, Types of Lines.

Geometrical Constructions: Regular polygons using angle, ARC and general methods. Conical

Curves: Construction of ellipse, parabola and hyperbola by using eccentricity method.

Śulba Sūtras (Vedic Geometry)**UNIT-2****PROJECTION OF POINTS AND STRAIGHT LINES:**

Introduction: Reference planes, importance of reference lines and planes; Principles of projection.

Projection of Points: Projection of points located in any of the four quadrants.

Projection of Straight Lines: Projection of straight lines - parallel to both the reference planes, parallel to the one plane and inclined to other plane, parallel to one plane and perpendicular to other plane.

PRACTICES:

- A road roller covers 'x' kilometres distance in one day & the roller completed 'N' revolutions in a minute. By using the above information, inscribe a regular hexagon and pentagon in a circle of diameter, D. Where 'D' is considered as the diameter of the road roller. Also evaluate the length of each side of the regular hexagon and pentagon.
- A cow is tethered in the middle of a field which is in the form of circular shape and suppose that cow grazes 'x' square meters in a day. By using the above information, inscribe regular hexagon and pentagon in a circle of diameter 'D'.
- Two oranges on a tree are respectively x m and y m above the ground, and p m and q m from a r m thick wall, but on the opposite sides of it. The distance between the oranges, measured along the ground and parallel to the wall is 'L' m. (a) Determine the real distance between the oranges and the angle of inclination of the line joining the oranges with the ground and also with the wall.
- A room measures 'x' m long, 'y' m wide and 'z' m height. Assume ($x > y > z$). An electric bulb hangs in the centre of the ceiling and 'p' m below it. A thin straight wire connects the bulb to a switch kept in one of the corners of the room and 'r' m above the floor. Draw the projections.
- On lighting a rocket cracker, it gets projected in a parabolic path and reaches a maximum height of 'x' m when it is 'y' m away from the point of projection. Finally, it reaches the ground 'z' m away from the starting point. Find the angle of projection.
- Two pegs fixed on a wall are 'x' meters apart. The distance between the pegs measured parallel to the floor is 'y' meters. If one peg is 'z' meters above the floor. Consider ($x > y > z$) & assume suitable scales. Design the height of the second peg and the inclination of the line joining the two pegs with the floor. Develop the projections.

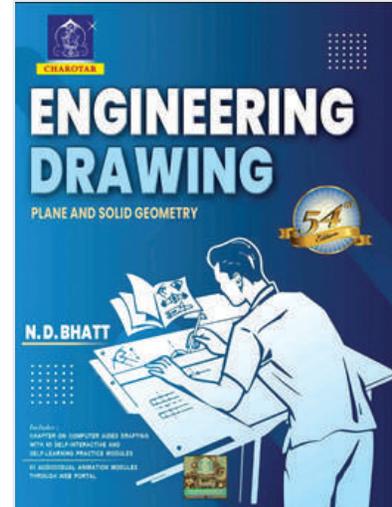


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SKILLS:

- ✓ Convert isometric views of objects into orthographic views and vice versa.
- ✓ Visualize the shape of the 3D components.
- ✓ Create pictorial views by using AutoCAD.
- ✓ Understand projections by visualization.

MODULE-2**UNIT-1****18L+0T+18P+18SL = 54 hours****PROJECTIONS OF PLANES:**

Regular planes perpendicular to one reference plane and inclined to the other reference plane.

UNIT-2**PROJECTIONS OF SOLIDS:**

Axis parallel to one reference plane and inclined to other plane - prisms, pyramids.

UNIT-3**CONVERSION OF ISOMETRIC PROJECTIONS TO ORTHOGRAPHIC PROJECTIONS:**

Conversion of isometric views of geometrical shapes, and simple orthographic views.

PRACTICES:

- A plate having shape of an isosceles triangle has base 'x' mm long and altitude 'y' mm. It is so placed that in the front view it is seen as an equilateral triangle of 'x' mm sides and one side inclined at an angle 'θ' degrees to the reference line. Develop its front view and top view.
- Prepare the top-view (plan) of a class-room/lab, home (Drawing Room/Bedroom/ Study Room, Kitchen) along with suitable dimensions.
- A lighting point in a ceiling design is 0 mm above the HP and 50 mm in front of the VP (i.e., lies exactly on HP). Draw views and mark the location. Explain what it means physically.
- A sensor mounted on a panel lies 22 mm below the panel surface (HP) and 60 mm in front of the operator (VP). Draw the reference line and mark views. Justify point placement.
- You are given an isometric view of an L-shaped bracket with holes and steps. Draw the orthographic views (Front, Top, and Right Side views).

ACTIVITIES:

- Developing the following solids with the help of cardboard/ thick paper, cube, cuboid prisms & pyramids (triangular, square, pentagonal, and hexagonal) right circular cylinder and cone.
- Design a Bolt and nut assembly for the given dimensions.
- Design a Connecting rod of IC engine for the given dimensions.
- Design a I.C Engine Piston with piston rings for the given dimensions.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Creating and interpreting technical drawings.	Apply	1,3,5
2	Apply the drawing skills in representing various geometrical features.	Apply	1,3,5
3	Develop orthographic projections and isometric views of various objects using AutoCAD.	Analyse	1,3,5
4	Sketch simple objects and their pictorial views using AutoCAD.	Analyse	1,3,5

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOK:**

1. N D Bhatt, "Engineering Drawing", 54th edition, Charotar Publication, 2023.

REFERENCE BOOKS:

1. S. N. Lal, "Engineering Drawing with an Introduction to Auto CAD", 1st edition, Cengage, 2017.
2. K L Narayana, "Engineering drawing", 2nd edition, SciTech Publications, 2014.

22CS101 PROGRAMMING IN C

Hours Per Week :

L	T	P	SL	C
2	0	4	2	4

PREREQUISITE KNOWLEDGE: Fundamentals of Problem Solving.**COURSE DESCRIPTION AND OBJECTIVES:**

This course is aimed to impart knowledge on basic concepts of C programming language and problem solving through programming. It covers basic structure of C program, data types, operators, decision making statements, loops, functions, strings, pointers, structures and unions. At the end of this course, students will be able to design, implement, test and debug complex problems using features of C.

MODULE-1**UNIT-1****12L+0T+24P +12SL=48 Hours****INTRODUCTION TO ALGORITHMS AND PROGRAMMING LANGUAGES:**

Introduction to Algorithms: Introduction to computational thinking – Problem solving with algorithms and flowcharts - Introduction to C: Structure of a C program - pre-processor statement) inline comments, variable declaration statements, executable statements; C Tokens - C character set, identifiers and keywords, type qualifiers, type modifiers, variables, constants, punctuations and operators.

Data Types and Operators: Basic data types; Formatted I/O; Reading and writing characters; Operators - assignment, arithmetic, relational, logical, bitwise, ternary, address, indirection, sizeof, dot, arrow, parentheses operators; Expressions - operator precedence, associative rules.

Control Statements: Introduction to category of control statements; Conditional branching statements - if, if- else, nested-if, if – else ladder, switch case;

Iterative statements - for, while, do - while, nested loops; Jump statements - break, jump, goto and continue.

Algorithmic logic in Panini's Ashtadhyayi; problem-solving in Indian logic (**Nyaya Shastra**), Structured numerical systems – Vedic mathematics and early binary concepts

UNIT-2**FUNCTIONS & POINTERS:**

User-defined functions: Function declaration - definition, header of a function, body of a function, function invocation; Call by value, Call by address. Recursion; Library Functions; Storage classes; Scope of a variable.

Pointers: Declaration, Initialization, Multiple indirection, Pointer arithmetic.

Recursive hymns (**Rigveda**), modular constructs in Shastra classification, Concepts of abstraction and references in Indian epistemology (**Pramana**).

MODULE-2**UNIT-1****18L+0T+36P +18SL=72 Hours****ARRAYS:**

Arrays: Introduction; Types of arrays; Single dimensional array - declaration, initialization, usage, reading, writing, accessing, memory representation, operations; Multidimensional arrays. Passing arrays to functions; Relationship between arrays and pointers, scaling up - array of arrays, array of pointers, pointer to a pointer and pointer to an array; Dynamic memory allocation functions – Creating arrays dynamically and performing operations on them.

Representation of multidimensional data in ancient Indian astronomy and calendar systems Granularity and scalability in system design found in traditional architecture (e.g., **Vastu**).



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SKILLS:

- ✓ Analysis of the problem to be solved.
- ✓ Select static or dynamic data structures for a given problem and manipulation of data items.
- ✓ Develop C programs that are understandable, debuggable, maintainable and more likely to work correctly in the first attempt.

UNIT-2**STRINGS:**

Strings: Character array, reading strings from the standard input device, displaying strings on the standard output device, Importance of terminating a string, Standard string library functions. Preservation and transmission of Sanskrit and Tamil texts using structured phonetic systems.

UNIT-3**STRUCTURES, UNIONS:**

Structures: Defining a structure, declaring structure variable, Operations on structures, Pointers to structure - declaring pointer to a structure, accessing structure members using pointer; Array of structures, Nested structures, passing structures to functions - passing each member of a structure as a separate argument, passing structure variable by value, passing structure variable by reference/ address; Typedef and structures.

Unions: Defining a union - declaring union variable, operations on union.

Classification of knowledge in Indian systems – Charaka Samhita, Manuscripts, Palm-leaf layouts, Group representation in indigenous knowledge frameworks – e.g., Ayurveda Tridosha classification.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Explain algorithmic problem-solving, flowchart design, and fundamental programming constructs in C.	Apply	1, 2
2	Analyze and implement various control structures (conditional, iterative, and jump statements) for effective decision-making in programs.	Analyze	2, 3, 4
3	Implement modular programming by designing user-defined functions and utilize recursion effectively for problem-solving. Apply array concepts, including single and multi-dimensional arrays, dynamic memory allocation, and pointer-array relationships in programming.	Apply	1, 2, 3, 4, 5
4	Utilize string handling techniques and standard string library functions to solve text-processing problems effectively.	Evaluate	1, 2, 3, 5
5	Design, implement, and analyze structured data types using structures and unions for efficient handling of complex data.	Create	1, 2, 3, 5

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOKS:**

1. Behrouz A. Forouzan, Richard F. Gilberg, "Programming for Problem Solving", 1st edition, Cengage publications, 2019.
2. Ajay Mittal, "Programming in C - A Practical Approach", 1st edition, Pearson Education, India, 2010.

REFERENCE BOOKS:

1. R.G. Dromey, "How to Solve it by Computer", Prentice-Hall International Series in Computer Science, USA.
2. Reema Thareja, "Computer Fundamentals and Programming in C", 1st edition, Oxford University Press, India, 2013.
3. Herbert Schildt, "C: The Complete Reference", 4th edition, Tata McGraw-Hill, 2017.
4. Byron S Gottfried, "Programming with C", 4th edition, Tata McGraw-Hill, 2018.

22EN103 ENGLISH PROFICIENCY AND COMMUNICATION SKILLS

Hours Per Week :

L	T	P	SL	C
0	0	2	0	1

PREREQUISITE KNOWLEDGE: Basics of grammar, Read and understand for global context, Cultural sensitivity and Basic writing skills.

COURSE DESCRIPTION AND OBJECTIVES:

English Proficiency and Communication Skills seeks to develop the students' abilities in listening, speaking, reading, writing and grammar. The course will provide students an exposure on a wide range of language use in everyday situations. It will make the students to equip with functional English and make them use it confidently in their professional and social contexts. Finally, students will strengthen their listening, speaking, reading, writing skills in English.

MODULE-1

UNIT-1

0L+0T+12P +0SL=12 Hours

MY LIFE AND HOME – MAKING CHOICES – HAVING FUN:

Listening: Understanding short monologues or dialogues and choose the correct visual.

Speaking: Self-introduction, agreeing, disagreeing, making decision, cultural matters in a limited way.

Reading: Understanding main message, factual information global meaning, specific information and paraphrasing.

Writing: Developing hints-based mail, Writing short messages/paragraphs.

Vocabulary: Discerning use of right word suiting the context, B1 Preliminary word list.

Grammar: Frequency Adverbs, State Verbs and Prepositions. In Indian philosophies like **Vedanta**, **Sankhya**, and **Yoga**, the concept of cyclical time is fundamental. the **Atman** (soul) is eternal and always present. In Indian agriculture, astrology, and spirituality, the regular appearance of seasons or celestial events often translates to frequency. (Life on Earth, governed by cycles of karma and rebirth, reflects actions that happen at varying intervals).

UNIT-2

ON HOLIDAY – DIFFERENT FEELINGS – THAT'S ENTERTAINMENT:

Listening: Understand straightforward instructions or public announcements.

Speaking: Describing people, things and places in a photograph, making suggestions, discussing plans.

Reading: Longer text for detailed comprehension, gist and inference.

Writing: Developing notes and responding to penfriends or 'e-pals'.

Vocabulary/Grammar – Comparatives and Superlatives, Gradable and non-gradable adjectives, Cloze tests.

PRACTICES:

- Developing hints based mail.
- Writing short messages.
- Writing paragraphs.
- Expressing opinions and cultural matters.

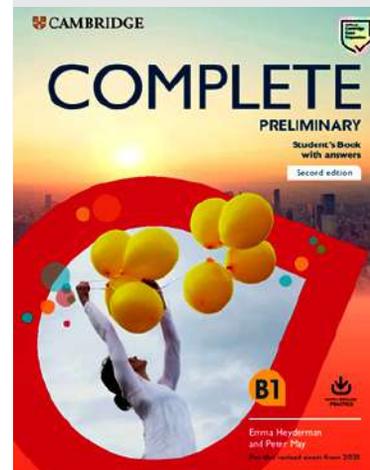


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SKILLS:

- ✓ Use of appropriate grammar and vocabulary with syntactic patterns in short texts.
- ✓ Read and extract the main message, global meaning, specific information, detailed comprehension, understanding of attitude, opinion and writer purpose and inference.
- ✓ Listen to understand key information, specific information, gist and detailed meaning and to interpret meaning.
- ✓ Understand questions and make appropriate responses and talk freely on everyday topic.

- Understanding short monologues.
- Understanding straightforward instructions and public announcements.
- Describing people, things and places in a photograph.

MODULE-2**UNIT-1****0L+0T+18P +0SL=18 Hours****GETTING AROUND – INFLUENCES:****Listening:** Discussion activities and listening to understand the gist of each short dialogue.**Speaking:** Snap Talks, Make and respond to suggestions, discuss alternatives and negotiate agreement.**Reading:** Reading for understanding coherence of the text and drawing inferences.**Writing:** Reading an announcement from a magazine or website for preparing an article.**Vocabulary / Grammar:** Punctuation, Prepositions, (Mount Meru, in Hindu, Buddhist, and Jain cosmology, is considered the center of the universe, and many deities are believed to reside on its peaks). Phrasal Verbs, B1 Preliminary word list.**UNIT-2****STAY FIT AND HEALTHY – LOOKS AMAZING!****Listening:** An interview for a detailed understanding of meaning and to identify attitudes and opinions.**Speaking:** Discuss likes, dislikes, experiences, opinions, habits, etc.**Reading:** Content, Communicative Achievement, Organisation and Language.**Writing:** Developing a story with clear links to the given opening sentence.**Vocabulary / Grammar:** Modals, Conditionals, Indian philosophy, particularly in Hinduism, Buddhism, and Jainism, the law of karma is central to understanding the relationship between actions and their consequences. Verb forms (Time and Tense).**UNIT-3****THE NATURAL WORLD – EXPRESS YOURSELF!****Listening:** Listening for specific purpose, listening for identifying the situation.**Speaking:** Discussing sports, discussing everyday objects in photos, talking about habits and routines.**Reading:** Reading to identifying text purpose, Identifying opinion and attitude.**Writing:** Reported speech, using range of tenses.**Vocabulary / Grammar:** Collocations, Adjective Prefixes and Suffixes.**PRACTICES:**

- Listening to understand the gist of each short dialogue.
- Listening to an interview for a detailed understanding of meaning and to identify attitudes and opinions.
- Preparing an article.
- Discuss for alternatives and negotiate agreement.
- Discussion on likes, dislikes, experiences, opinions, habits, etc.

ACTIVITIES:

- Snap talks.
- Making and responding suggestions.
- Discussion on likes, dislikes, experiences, opinions, habits, etc.
- Description of people, things and places in a photograph.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	apply to read and grasp content on a range of topics/texts related to their everyday life like notifications, advertisements, travel brochures, news reports, articles.	Apply	7, 8, 9, 10, 11
2	apply suitable strategies to achieve comprehension, like listening for main points and checking comprehension using contextual clues etc.	Apply	7, 8, 9, 10, 11
3	demonstrate vocabulary beyond that of the familiar subjects.	Analyze	7, 8, 9, 10, 11
4	show sufficient control of English grammar and sentence variety to coherently organize information at sentence and discourse levels.	Evaluate	7, 8, 9, 10, 11
5	use functional English to communicate and interact effectively in everyday situations.	Create	7, 8, 9, 10, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOK:**

1. Emma Heyderman and Peter May, "Complete Preliminary", Student's Book with Answers, 2nd edition, Cambridge University Press, 2019.

REFERENCE BOOKS:

1. Annette Capel and Rosemary Nixon, "Introduction to PET", Oxford University Press, 2009.
2. Adrian Doff and Craig Thaine, "Empower Pre intermediate", Cambridge University Press, 2015.
3. Louise Hashemi and Barbara Thomas, "Objective PET", Cambridge University Press, 2010.

22CT101 ENVIRONMENTAL STUDIES

Hours Per Week :

L	T	P	SL	C
2	2	0	2	3

PREREQUISITE KNOWLEDGE: General awareness regarding environmental problems and importance of environmental protection.

COURSE DESCRIPTION AND OBJECTIVES:

It is a multidisciplinary subject where we deal with different aspects using a holistic approach. It is evolving to be the education for sustainable and ethical development both at a local and global level. It helps to prepare the next generation and to plan appropriate strategies for addressing environmental issues. It identifies and create solutions that conserve to manage ecosystem and biodiversity and also helps to eliminate pollutants, toxicants to preserve air, water and soil quality. Environmental education recognize impacts of global issues, enhances the public awareness and helps to take decisions towards environmentally responsible actions.

MODULE-1**UNIT-1****12L+12T+0P+12SL=36 Hours****SUSTAINABLE DEVELOPMENT, NATURAL RESOURCES AND ECOSYSTEMS:**

Sustainable Development - Concept and Sustainable Development Goals. Natural Resources- Forest, water, energy, mineral and land resources. Concept of Ecology and Ecosystems, Ecological succession, Population Ecology.

UNIT-2**BIODIVERSITY AND ECOSYSTEM CONSERVATION:**

Biodiversity concept, Biodiversity hot spots, Biodiversity indices (Simpson index and Shannon index) Threats to biodiversity, Biodiversity conservation (in-situ and ex-situ). **Traditional Knowledge** in biodiversity conservation, Ecosystem protection and its maintenance.

PRACTICES:

- Wealth from waste, (development of value-added products from waste materials).
- Biogas production.
- Herbarium sheet preparation.
- Models: wind mills, solar cell, bioenergy, Vertical garden, green building models.
- Preparation of Compost.
- Installation of artificial nests for local bird population.
- On campus plantation programme.
- Disposal of laboratory waste- Individual practice and report writing, lab safety awareness

MODULE-2**UNIT-1****18L+18T+0P+18SL =54 Hours****ENVIRONMENTAL ISSUES AND WASTE MANAGEMENT:**

Emerging local and global environmental issues, Waste Management-Municipal, Industrial. Biomedical, hazardous and radioactive waste management, Waste-water treatment.

UNIT-2**ENVIRONMENTAL HEALTH AND SAFETY:**

Occupational health and hygiene, Toxicity studies (Heavy metal toxicity, Tobacco, Silicosis, Xenobiotics and Carcinogenicity) and its remedy.

UNIT-38TH
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**PERSPECTIVES IN
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ADVANCED TECHNIQUES IN POLLUTION CONTROL:

Pollution control devices -Catalytic converters, Electrostatic precipitators, Scrubbers, Cyclonic separators, Gravitational settling chambers, Carbon capture technology, Water pollution technologies- membrane filtration, bioremediation, Bio manipulation technology.

PRACTICES AND FIELD PROJECT:

- Comparative analysis of water quality metrics to determine whether the water is suitable for irrigation and drinking purposes.
- Survey of flora and fauna in your own remote areas for assessment of local Biodiversity.
- Comparative study of traditional versus modern waste collection systems.
- Study on the effects of household items and detergents on the quality of the water.
- Detailed study of any environmental problem/situation, Identification of factors pertaining to that problem with conclusion.
- Study of agricultural runoff in crop lands of Angalakuduru and Sekuru.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Ability to apply knowledge, research skills and field techniques to protect environment.	Apply	2, 6, 9, 11
2	Examine the impacts of ecosystems, biodiversity and apply conservation strategies to curb the issues for sustainability	Apply	2, 6,9, 11
3	Survey on various waste management approaches and develop innovative solutions to solve the issues in the future	Evaluate	2, 3, 6,11
4	Create and implement useful skills to solve occupational health and environmental issues, ensuring safer work places and healthier communities	Apply	2,3, 6, 11
5	Analyse, design and implementation of sophisticated control system to manage industrial emissions and manage environmental pollutants	Analyse	1,2 3, 6,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOKS:**

1. Anubha Kaushik and C. P. Kaushik, "Perspectives in Environmental Studies", 8th edition, New Age International Publishers, 2024.
2. M. Anji Reddy, "Textbook of Environmental Science and Technology" B. S. Publications, 2023.

REFERENCE BOOKS:

1. B. Joseph, "Environmental Studies Simplified", 3rd edition, Mc Graw Hill Education (India), 2024.
2. John Pichtel, "Waste Management Practices: Municipal, Hazardous, and Industrial", 2nd Edition, Taylor and Francis Books India Pvt. Ltd, 2024.
3. Pankaj Gupta, "Environmental Health and Occupational Safety". 1st Edition, Routledge Taylor and Francis group, 2024.
4. C. S. Rao, "Environmental Pollution Control Engineering", New Age International Publishers, 2021
5. P.D. Sharma, "Ecology and Environment", 13th Edition, Rastogi publication, 2022.
6. Anil Kumar De, "Environmental Chemistry", 10th Edition, New Age International Private Limited, 2022.

22MS101 MANAGEMENT STUDIES

Hours Per Week :

L	T	P	SL	C
2	2	0	2	3

PREREQUISITE KNOWLEDGE: Management Fundamentals, Operations Management, Business Environment.

COURSE DESCRIPTION AND OBJECTIVES:

This course aims to provide foundational knowledge in the science of management by examining classical and modern management theories and their applications in business operations, HR, and marketing. The course equips students with tools to analyse markets, customers, and internal organizational processes, thereby enabling them to develop effective managerial strategies.

MODULE-1

UNIT-1

12L+12T+0P+12SL=36 Hours

INTRODUCTION TO MANAGEMENT:

Concepts of Management and Organization – Nature, Importance and Functions – Evolution of Management Thought: Taylor's Scientific Management, Fayol's Principles, Administrative Theory, Mayo's Experiments. Theories of Motivation: Maslow and Herzberg. Leadership Styles. Corporate Social Responsibility from Indian Perspectives.

UNIT-2

OPERATIONS MANAGEMENT:

Plant Location Principles, Plant Layout Types, Productivity Measures, Project Management – Planning, Scheduling and Controlling, Inventory Control Techniques – EOQ, ABC Analysis, Stores and Purchase Management.

PRACTICES

- Design a management strategy for a Start-up using planning, organizing, leading, controlling.
- Conduct a leadership style analysis comparing crisis vs. stability periods.
- Prepare a CSR initiative aligned with Indian ethics and practices.
- Create a simplified Gantt chart for a semester project schedule.
- Compute EOQ for a sample product with demand, ordering, and holding cost data.
- Simulate inventory classification using ABC analysis for a retail store.
- Demonstrate statistical process control using chart data sets.
- Evaluate functions of management through a case study of a real-life business.

MODULE – II

UNIT-1

18L+18T+0P+18SL=54 Hours

HUMAN RESOURCE MANAGEMENT:

Concepts and Functions of HRM – Manpower Planning – Recruitment & Selection – Training & Development – Wage & Salary Administration – Promotion, Transfer and Separation – Performance Appraisal – Grievance Handling – Welfare Measures – Job Evaluation and Merit Rating, **Ancient Gurukul systems**, mentorship models, values-based leadership.

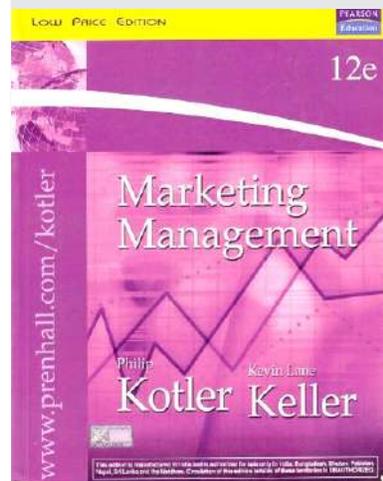


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SKILLS:

- ✓ *Strategic Thinking and Managerial Decision-Making.*
- ✓ *Human Resource Planning and Administration*
- ✓ *Application of Operations and Inventory Techniques.*
- ✓ *Marketing Analysis and Digital Campaign Planning.*
- ✓ *Ethical and Sustainable Business Practices.*

UNIT-2**MARKETING MANAGEMENT:**

Evolution and Functions – Selling vs. Marketing – 4Ps & 7Ps of Marketing – Product Mix & Life Cycle – Price Mix & Pricing Methods – Place Mix & Channels – Promotion Mix Tools – Packaging & Process in Marketing.

UNIT-3**EMERGING TRENDS IN BUSINESS MANAGEMENT:**

Digital Transformation in Business – Role of AI in business, Remote & Hybrid Work Models, Digital Marketing Innovations, FinTech & Digital Payments, E-Commerce & Social Commerce.

PRACTICES:

- Draft a job description and specification for a chosen designation.
- Prepare an HR training calendar for a small business.
- Design a grievance handling mechanism with a workflow.
- Conduct a mock interview and document evaluation criteria.
- Analyze the marketing mix for a consumer product or service.
- Conduct a class debate on: “Is Digital Marketing replacing Traditional Marketing?”
- Analyze an Indian e-commerce platform’s business model (e.g., Flipkart, Nykaa).
- Compare and contrast HR practices across two industry sectors.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Analyze core management principles and classical theories	Analyze	1,2
2	Apply operations management techniques	Apply	1,2,3
3	Evaluate human resource management practices	Evaluate	1,2
4	Evaluate the markets, customers and competition	Evaluate	1,2,3
5	Critically assess emerging trends such as digital transformation	Apply	1,2,3

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOKS:**

1. Kotler Philip & Keller Kevin Lane, Marketing Management, 12th edition, PHI, 2005.
2. Koontz & Weihrich, Essentials of Management, 6th edition, TMH, 2005.
3. Aryasri, Management Science, 4th edition, TMH, 2004.

REFERENCE BOOKS:

1. Stoner, Freeman, Gilbert, Management, 6th edition, Pearson Education, 2018.
2. Thomas N. Duening & John M. Ivancevich, Management: Principles and Guidelines, Biztantra, 2003.

22CS102 PROBLEM SOLVING THROUGH PYTHON

Hours Per Week :

L	T	P	SL	C
2	0	2	2	3

PREREQUISITE KNOWLEDGE: Prior knowledge of any programming language and object-oriented concepts is helpful but not mandatory.

COURSE DESCRIPTION AND OBJECTIVES:

This course offers sufficient knowledge required to understand the fundamental concepts of Python programming language. This course enables students to choose appropriate data structures (lists, dictionaries, tuples, sets, strings) for the given problem. In addition, the students will be able to create reliable, modular and reusable applications using Object- Oriented Programming approaches. At the end they will get an idea of how to access database using python programming, develop web applications, and using web Services using python Programming.

MODULE-1

UNIT-1

12L+0T+12P+12SL=36 Hours

INTRODUCTION:

Introduction to python, Variables, Assignment, Keywords, Built-in functions, Indentation, Comments, Basic data types - integers, float, complex, Boolean, strings; Python program development, running python using REPL shell, Python scripts.

Operators and Expressions: Operators- arithmetic operators, comparison (relational) operators, assignment operators, logical operators, bitwise operators, membership operators, identity operators; Expressions and order of evaluations.

Control Structures: Conditional control structures - if, else if, else; Loop control structures - for, while, for... else, while...else, nested loops, break, continue, pass.

Structured rule-based logic as in *Panini's grammar*; algorithmic thinking in *Nyaya philosophy*.

UNIT-2

PYTHON DATA STRUCTURES AND FUNCTIONS:

Data Structures: Lists, Tuples, Sets, Strings, Dictionary - creation, accessing, basic operators and methods; List comprehensions.

Functions: Defining functions, calling functions, Passing arguments - keyword arguments, default arguments, positional arguments, variable-length arguments; Types of functions- anonymous functions, fruitful function, recursive functions; Scope of the variables- global and local variables, Development of recursive and non-recursive functions.

Recursive and modular thinking in Vedic systems; structured data modeling akin to Ayurveda and traditional knowledge.

MODULE-2

UNIT-1

18L+0T+18P+18SL=54 Hours

MODULES, PACKAGES AND OOPS:

Creating modules, Import Statement, From...Import Statement, Name Spacing, Creating user defined modules.

Standard Modules: sys, math, date, time, os, random and itertools modules.

Packages: Package Initialization, Importing * From a Package, Sub packages.

Modular organization of knowledge in Indian philosophical schools; abstraction in ancient systems like *Arthashastra*.

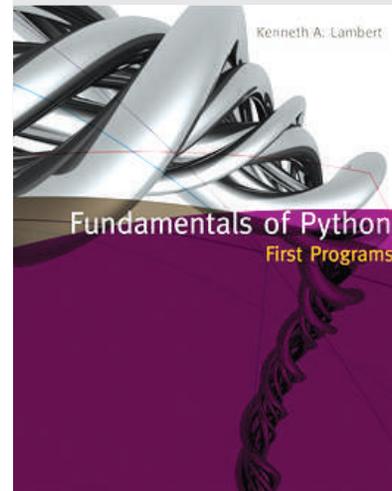


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UNIT 2**OBJECT ORIENTED PROGRAMMING:**

Classes and Objects, Attributes and Methods, Constructors and Destructors- (init and del methods), Encapsulation - bundling of data and methods within a class, promotes data integrity and prevents unauthorized access, use of access modifiers to control access to attributes and methods; Inheritance, Method Overriding, Polymorphism, Abstraction, Class and Instance Variables - Differentiate between class variables (shared among all instances) and instance variables (unique to each instance), Access Modifiers-access modifiers and their role in controlling access to class members.

Operator Overloading: customization of operators for user- defined classes- define methods such as add, sub, mul, etc.

Traditional agricultural methods (Krishi-Parashara), Ayurveda-based healthcare practices.

UNIT-3**ERRORS AND EXCEPTIONS AND FILES:**

Introduction to Exceptions, Handling Exception, Try Except Else and Finally Block, Raising Exceptions. File Processing: Reading and writing files -creating a new file, writing to a file, reading text files, opening and closing files, reading, writing, tell (), seek (), rename ().

Risk assessment in ancient Indian governance (Arthashastra); traditional knowledge documentation and preservation.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Analyze various features of programming language and their application in problem solving in computer programming to write, compile, and debug programs in python language.	Analyze	1,2
2	Make use of different data types to design programs involving decisions, loops, and functions.	Apply	1,2,5
3	Analyze the usage of different data structures for practical and contemporary applications for a given problem.	Analyze	1, 2, 3, 5
4	Choose appropriate programming paradigms, interrupt and handle exceptions using files to propose solution through reusable modules	Apply	1, 2, 3,5
5	Develop applications for a range of problems using object-oriented programming techniques.	Apply	1, 2,3,4,5

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOKS:**

1. Kenneth A. Lambert, "The Fundamentals of Python: First Programs", Cengage Learning, 2011.
2. Mark Lutz, "Learning Python", 5th edition, Orielly Publishers, 2013.
3. Reema Thareja, 'Python Programming using problem solving approach', oxford university press,2017.

REFERENCE BOOKS:

1. Introduction to Computation and Programming Using Python. John V. Guttag, The MIT Press.
2. James Payne, "Beginning Python using Python 2.6 and Python 3", Wrox publishing.
3. Paul Gries, "Practical Programming: An Introduction to Computer Science using Python 3", The Pragmatic Bookshelf, 2nd edition, 4 Oct. 2013.
4. Allen B. Downey, "Think Python", 1st edition, Orielly publishing.

22EN104 TECHNICAL ENGLISH COMMUNICATION

Hours Per Week :

L	T	P	SL	C
1	0	2	1	2

PREREQUISITE KNOWLEDGE: Basic sentence formation, understanding contextual meanings, basic writing skills and moderate fluency in English.

COURSE DESCRIPTION AND OBJECTIVES:

In this course students will read, analyze, and interpret material from technical and general fields, and practice reading, writing, listening and speaking skills to gain exposure and functional English on a variety of contemporary topics. The overall course objective is to provide English for Specific Purposes (ESP) instruction to enhance students' reading, writing, listening and speaking skills through a practice in the language. It will aim to build students' confidence and motivation through exposure to academic skills like Note making/taking, Paraphrasing, Summarizing, Report Writing, Making Presentations etc., so as to generate interest in the language from an ESP perspective. Finally, students are expected through the course to gain key strategies and expression for communicating with professionals and non-specialists.

MODULE-1

UNIT-1

6L+0T+12P+6SL= 24Hours

EFFECTIVE COMMUNICATION: EXPLORING CHANNELS AND METHODS:

Sub-themes: Types of communication, non-verbal communication, communication strategies and Barriers of communication, digital communication tools.

*IKS- Traditional Communication Methods in Ancient India and the *Gurukul system* emphasized face-to-face communication, clarity in speech, and respectful dialogue.

Vocabulary Building: Roots, Prefixes and Suffixes-commonly used 50.

Grammar: Articles and Prepositions.

Reading: Skimming and scanning for information.

Writing: Paragraph Writing, Summarizing.

Listening: Note Making, Note Taking.

Speaking: Introducing One- self.

UNIT- 2

A NEW ERA OF HEALTH CONSCIOUSNESS: IN PURSUIT OF BETTER HEALTH:

Sub-themes: Importance of physical and mental well-being, benefits of healthy lifestyle choices, current health trends.

*IKS- "Traditional Indian Approaches to Health and Well-being"

Vocabulary Building: Homophones and Homonyms (commonly Miss spelt Words).

Grammar: Tenses.

Reading: Reading for specific details – Reasons.

Writing: Process Description.

Listening: Listening for main ideas and supporting details on health topics.

Speaking: Object Description (JAM).

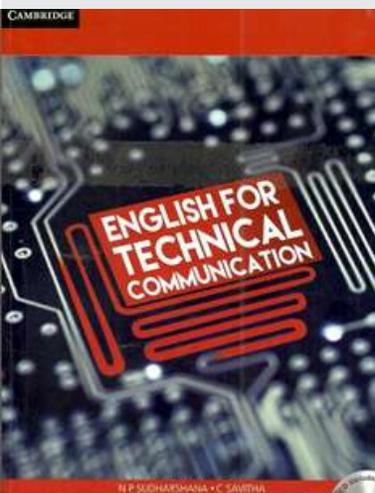


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PRACTICES:

- Note making and Note Taking.
- Summarizing.
- Paragraph Writing.
- Reading Comprehension
- Error Correction and Restructuring.
- Vocabulary building.
- Process Description.
- Tenses.

MODULE-2**UNIT-1****9L+0T+18P+9SL= 36Hours****DISRUPTIVE TECHNOLOGIES: ETHICAL IMPLICATIONS AND FUTURE PROSPECTS:**

Sub-themes: Introduction to artificial intelligence, machine learning, Augmented and Virtual Realities, AI in different sectors, Colonizing the Space and Cloning, ethical implications of AI, future prospects.

Vocabulary Building: Idioms and Phrases

Grammar: Subject-Verb Agreement

Reading: Reading for Tone, intention and Irony for Global understanding

Writing: Paraphrasing, Letter Writing

Listening: Listening for main ideas

Speaking: JAM

UNIT-2**ENTREPRENEURSHIP AND START-UP CULTURE: EMERGING TRENDS:**

Sub-themes: Startup ecosystem, emerging industries, the role of technology in entrepreneurship, global market trends.

Vocabulary Building: Words Confused

Grammar: Active and Passive Voice

Reading: Reading for specific details

Writing: E-mail Etiquette, Data Interpretation, Report Writing

Listening: Note Making from a Long Lecture

Speaking: Group Discussion

UNIT-3**ETHICAL LEADERSHIP: INTEGRATING SOCIAL RESPONSIBILITY AND CORE VALUES:**

Sub-themes: Corporate social responsibility (CSR), ethical business practices, environmental responsibility.

Principles of Dharma and Leadership in Ancient Indian Thought

Vocabulary Building: Homophones-Spellings (commonly Miss Spelt Words).

Grammar: Synthesis – use of coordinating and subordinating Conjunctions.

Reading: Reading for tone, intention and irony.

Writing: Report Writing, Reviews and Social Media Messaging-Etiquette.

Listening: Listening for main ideas and supporting details on health topics.

SKILLS:

- ✓ Apply different sub-skills like skimming, scanning, reading for information, reading for inference etc. to understand different kinds of text.
- ✓ Apply different sub skills like top down, bottom up approaches to listening.
- ✓ Use functional vocabulary relevant to engineering and technology to express ideas lucidly.
- ✓ Use appropriate sentence structure, cohesive devices to construct simple text in regular correspondence like e-mails and letters.

Speaking: Team Presentations**PRACTICES:**

- E-mail writing.
- Letter writing.
- Paraphrasing
- Report writing.
- Process Description.
- Data Interpretation.
- Messaging in Social media.
- Writing Reviews.
- Group Discussion.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply a variety of strategies to interpret and comprehend spoken texts/discourse using contextual clues.	Apply	6, 7, 8, 9, 10, 11
2	Apply appropriate reading strategies to interpret content / material related to engineering and technology domain.	Apply	6, 7, 8, 9, 10, 11
3	Participate in discussions and make short presentations on general and technical topics.	Analyze	6, 7, 8, 9, 10, 11
4	Possess an ability to write clearly on topics related to technology and workplace communication.	Evaluate	6, 7, 8, 9, 10, 11
5	Choose functional language, grammar structures, cohesive devices and skills of organization to express clearly in speaking.	Create	6, 7, 8, 9, 10, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS):**TEXTBOOK:**

1. Tabitha Chekuri & Ravi Perimulla, *INGENUITY: A Course Book on Technical English Communication*, Cengage Learning, 2022.

REFERENCE BOOKS:

1. Balasubramanian T, "A Text book of Phonetics for Indian Students", Orient Longman, New Delhi, 1989.
2. Krishnaswamy, N and Sriraman, T, "Current English for Colleges", Trinity publications, 2016.
3. Ashraf Rizvi M, "Effective Technical Communication", 2nd Edition, McGraw Hill Education, 2017.

22CY101 CYBER SECURITY

Hours Per Week :

L	T	P	SL	C
0	1	1	0	1

PREREQUISITE KNOWLEDGE: Basic familiarity with computers, internet usage, mobile apps, and fundamental digital communication concepts.

COURSE DESCRIPTION AND OBJECTIVES:

This course offers a broad overview of cybersecurity, designed for students from all engineering disciplines. It introduces the basic concepts of security, threats, and preventive practices in the digital world. Students will learn cyber hygiene, common attack vectors, legal and ethical considerations, and safe digital practices applicable to personal and professional environments.

MODULE-1

UNIT-1

0L+6T+6P+0SL = 12 Hours

INTRODUCTION TO CYBERSECURITY:

Cybersecurity: Definition and Goals, Scope and Importance in Modern Society, Threat landscape: Statistics and recent real-life cyber-attacks, Basics of Information Security: Confidentiality, Integrity, and Availability (CIA Triad).

UNIT-2

TYPES OF CYBER ATTACKS:

Malware (Viruses, Worms, Trojans, Ransomware), Phishing, Spoofing, Denial of Service (DoS/DDoS), Man-in-the-middle (MitM), SQL Injection, Zero-day attacks, Social engineering attacks.

MODULE-2

UNIT-1

0L+9T+9P+0SL = 18 Hours

CYBER SAFETY AND BEST PRACTICES:

Password protection and Multi-Factor Authentication, Safe browsing habits and email hygiene, Mobile device security, Secure use of social media platforms, Safe use of public Wi-Fi.

UNIT-2

CYBER LAWS AND ETHICS:

Overview of Indian IT Act 2000 & amendments, Digital signature, cyber-crime laws, Data Privacy & GDPR, Cyber ethics & responsible digital behaviour.

UNIT-3

THREATS, ATTACKS, AND VULNERABILITIES:

Online Threat Vectors: Web, Email, USB, Social Media, Introduction to Vulnerabilities and Risk Concepts, Case Studies: Real-world Cyber Attacks.

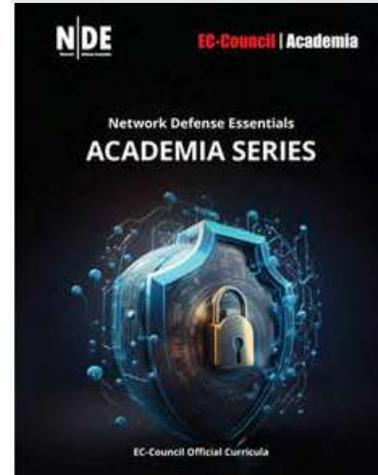


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SKILLS:

- ✓ Awareness of common cyber threats and online risks.
- ✓ Ability to identify phishing, fraud messages, and unsafe links.
- ✓ Practice of strong password habits and secure digital behaviour.
- ✓ Understanding of real-world cybercrime scenarios.

PRACTICES:

- Working of phishing emails.
- Secure password creation.
- Browser settings and privacy tools.
- Use of antivirus/firewalls/Two-Factor Authentication (2FA).
- Introduction to tools like Wireshark, Burp Suite demo.
- Cybercrime reporting portal walk-through.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Understand and apply the fundamentals of cybersecurity and cyber threats.	Apply	1,2,6,8
2	Identify and explain common cyber threats and personal protection techniques.	Apply	1,2,3,4,6
3	Demonstrate safe browsing, secure communication practices, and recognize scam patterns.	Apply	2,3,4,6,8
4	Appreciate the role of cybersecurity across different fields and in daily personal use.	Apply	1, 2, 3,5

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS):**TEXTBOOK:**

1. EC-Council, "Cybersecurity Essentials", Cengage Learning, 2021.

REFERENCE BOOKS:

1. Nina Godbole & Sunit Belpure, "Cyber Security: Understanding Cyber Crimes, Computer Forensics and Legal Perspectives", Wiley India.
2. James Graham, "Introduction to Cyber-Warfare: A Multidisciplinary Approach", Syngress.
3. Peter W. Singer & Allan Friedman, "Cybersecurity and Cyberwar: What Everyone Needs to Know", Oxford University Press.

22SS101 CONSTITUTION OF INDIA

Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE: Nil

COURSE DESCRIPTION AND OBJECTIVES:

This foundational course introduces students to the basic philosophy and functioning of the Indian Constitution. It explores constitutionalism, fundamental rights, duties, directive principles, and the organization of the Indian state. Emphasis is placed on participatory democracy, local self-governance, and ethical foundations using insights from Indian Knowledge Systems (IKS) and alignment with Sustainable Development Goals (SDGs).

MODULE-1

UNIT-1

0L+12T+0P+0SL=12 Hours

Historical Background to the Indian Constitution- Meaning of Constitution, Constitutional Law and Constitutionalism- Historical evolution: colonial legacy to the Constituent Assembly- Salient features and values of the Indian Constitution, Rajadharma, Sabha–Samiti traditions of governance, Peace, Justice, and Strong Institutions.

UNIT-2

Fundamental Rights, Duties, Directive Principles, and Amendments-- Right to Equality, Freedom, and Life-- Directive Principles of State Policy- Fundamental Duties: relevance and legal status- Amendment procedure and Basic Structure Doctrine, Dharma & Nyaya principles in *Manusmriti & Arthashastra*, Reduced Inequality; Peace, Justice and Strong Institutions.

PRACTICES:

- Skit or role-play on framing the Preamble using Sabha–Samiti models.
- Group discussion: Comparison of Fundamental Duties with Dharma-based duties.
- Poster making: Timeline of Indian Constitutional development.

MODULE - 2

UNIT-1

0L+18T+0P+0SL=18 Hours

Structure and Form of Government- Federalism: Centre-State Power Distribution-Parliamentary Form of Government- Emergency Provisions: Sabha advisory traditions; checks and balances.

UNIT-2

Local Self-Government- 73rd and 74th Constitutional Amendments- Panchayats and Municipalities- Participatory democracy and grassroots governance: Gram Sabha, Panchayat Raj in Vedic and Smriti texts: Sustainable Cities and Communities.

UNIT-3

Constitution and Contemporary Citizenship- Importance of the Constitution in everyday life- Digital citizenship and democratic awareness- Rights of marginalized and vulnerable groups- Civic duties, RTI, electoral literacy: Duty-based ethics; community participation traditions- Gender Equality.

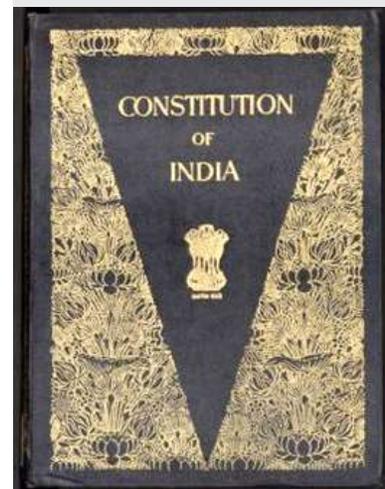


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SKILLS:

- ✓ Understand foundational constitutional principles and values.
- ✓ Identify and apply rights and duties in everyday civic life.
- ✓ Analyze government structure and local governance mechanisms.

PRACTICES:

- Mock Gram Sabha or Ward Committee meeting.
- RTI Application writing workshop.
- Constitution Quiz based on rights and duties.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Implement the core principles and features of the Indian Constitution in real- life civic and democratic situations.	Apply	6
2	Dissect the significance of Fundamental Rights, Duties, and Directive Principles in promoting constitutional morality.	Analyze	6,7
3	Differentiate the roles of constitutional institutions and intergovernmental relations in sustaining India’s federal framework.	Analyze	6,7
4	Evaluate the performance of the Indian Constitution in upholding democratic values and social justice.	Evaluate	6,7

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):



TEXTBOOK:

1. B.R. Ambedkar – The Constitution of India, Educreation Publishing, 2020.

REFERENCE BOOKS:

1. P.M. Bakshi – The Constitution of India, Universal Law Publishing, 15th Ed.
2. Subhash Kashyap – Our Constitution, National Book Trust, 2011.
3. Arun Thiruvengadam – The Constitution of India: A Contextual Analysis, Hart, 2017.
4. Constituent Assembly Debates – Lok Sabha Secretariat.
5. Arthashastra (Kautilya) – Translations on governance.
6. Manusmriti (Select chapters on duties and justice).

22SA103 PHYSICAL FITNESS

Hours Per Week :

L	T	P	SL	C
0	0	2	0	1

PREREQUISITE KNOWLEDGE: Nil

COURSE DESCRIPTION AND OBJECTIVES:

This course offers students a structured approach to improve their physical fitness and mental wellness using evidence-based exercise science and traditional yogic wisdom. It emphasizes developing strength, endurance, flexibility, and emotional balance, and encourages students to incorporate lifelong wellness habits.

MODULE-1

UNIT-1

0L+0T+12P+0SL = 12 Hours

FUNDAMENTALS OF PHYSICAL FITNESS:

Health-related and skill-related fitness components, Fitness assessment techniques and health screening, Posture and gait analysis.

UNIT-2

ASSOCIATING:

Endurance training methods – HIIT, continuous running, basic circuit training, Strength training using bodyweight and resistance, Importance of core stability and functional fitness, Injury prevention and recovery basics.

PRACTICES:

- Warm-up and mobility exercises, Stretching exercises.
- Running ABC Exercises.
- Speed Training - Short Sprints (30 Meter Run), Shuttle Runs.
- 400 Meters run, 100 Meters run.
- Bodyweight strength circuit (Sit- Ups and Push-Ups).
- Endurance (running/jogging/skipping).
- Static & dynamic stretching.
- Postural correction activities.

MODULE-2

UNIT-1

0L+0T+18P+0SL = 18 Hours

FLEXIBILITY, STRENGTH & COORDINATION:

Static and dynamic stretching, Balance drills and neuromuscular coordination, Plyometric and agility ladder exercises, Integration of yoga practices for cool-down.

UNIT-2

NUTRITION, RECOVERY & FITNESS HABITS:

Basics of sports and yogic nutrition, Macronutrients, hydration, meal planning, Role of sleep and active recovery, Fitness myths and self-monitoring.

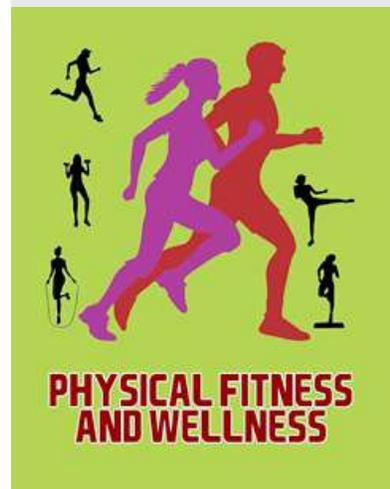


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SKILLS:

- ✓ Improved strength, endurance, and flexibility.
- ✓ Understanding of fitness principles.
- ✓ Discipline and goal-setting.
- ✓ Teamwork and communication.

UNIT-3

YOGA PRACTICES FOR WELLBEING:

Asanas (10–15) for flexibility, balance, and spine health, Pranayama: Anulom-Vilom, Bhramari, Kapalabhati, Meditation: Breath focus, Om chanting, Yoga Nidra and relaxation techniques.

PRACTICES:

- Guided Sukshma Vyayam and Asana sequences.
- Meditation.
- Yoga Nidra.
- Nutrition logging.
- Breath-focused mindfulness activities.
- Group Reflections.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Describe the physiological effects of exercise on the body systems.	Apply	1	7,8,9,10,11
2	Apply the FITT (Frequency, Intensity, Time, Type) principle to personal fitness plans.	Apply	1	7,8,9,10,11
3	Assess personal fitness levels through various fitness tests.	Analyze	2	7,8,9,10,11
4	Evaluate progress toward personal fitness goals and make adjustments as needed.	Evaluate	2	7,8,9,10,11
5	Construct a lifestyle plan that integrates regular physical activity for long-term health and fitness.	Create	2	7,8,9,10,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):



22SA104 LIFE SKILLS

Hours Per Week :

L	T	P	SL	C
0	0	2	0	1

PREREQUISITE KNOWLEDGE: Nil

COURSE DESCRIPTION AND OBJECTIVES:

This course offers orientation in life skills. Its objective is to acquaint students with the social and inter-personal skills that will enable them to cope with the constantly changing environment. Developing general self-awareness & self-expression.

KUCHIPUDI

MODULE-1

0L+0T+12P+0SL = 12 Hours

Origin of dance according to Natya Shastra, 1-10 Asamyukta hastaalu, 11-20 Asamyukta hastaalu.

MODULE-2

0L+0T+18P+0SL = 18 Hours

21-28 Asamyukta hastaalu, Chaturvidha Abhinayaalu, 1-12 Asamyukta hastaalu, 13-24 Asamyukta hastaalu, Pancha jaatulu, Rasa theory, Classical dance forms of India.

WESTERN DANCE

MODULE-1

0L+0T+12P+0SL = 12 Hours

Basic of Freestyle dancing, Understanding the Rhythm.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Adapting the basic steps to different music's, Assignments – using same choreography routines to different tracks.

CARNATIC MUSIC

MODULE-1

0L+0T+12P+0SL = 12 Hours

Basics of carnatic music, Sarali swarali 3 speeds, Akaara sadhana, Janta swaralu introduction, Importance of Raag, Taal and about different instruments.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Bhadrachala ramadasu keertanalu, Composing a song, Sing along with karaoke, Popular writers compositions from different languages, Students should do project about music and a famous person related to music.

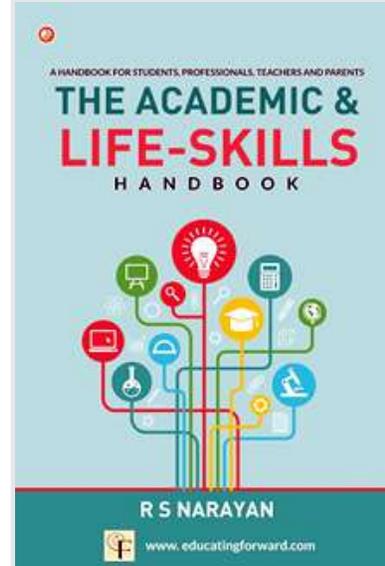


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SKILLS:

- ✓ *Bouncing back from setbacks and adversity.*
- ✓ *Thinking outside the box to generate new ideas.*
- ✓ *Discipline and goal-setting.*
- ✓ *Teamwork and communication.*

PUBLIC SPEAKING**MODULE-1****0L+0T+12P+0SL = 12 Hours**

Introduction to Public Speaking, Informative Speaking, Listening Effectively.

MODULE-2**0L+0T+18P+0SL = 18 Hours**

Organizing and Outlining, Delivering Your Speech, Introductions and Conclusions, Critical Thinking and Reasoning.

PAINTING**MODULE-1****0L+0T+12P+0SL = 12 Hours**

Free hand outlines drawing on the basis of creativity, originality and individuality.

MODULE-2**0L+0T+18P+0SL = 18 Hours**

Memory drawings on various topics like games, festivals, animal study and daily life of society, Still Life with light and shade, Nature study like Landscape, waterfall and Forests etc.

YOGA**MODULE-1****0L+0T+12P+0SL = 12 Hours**

Introduction to Yoga, Introduction to Yogasana Sports, Brief History of Yoga, Types, schools of Yoga, Sun salutations Variations.

MODULE-2**0L+0T+18P+0SL = 18 Hours**

Yoga for Stress, Introduction to Astanga Yoga, Introduction to classical texts of Yoga, Yogic Diet, Yoga Nidra, Introduction to Meditation, Yoga for Sports, Injury Management with Yoga, Introduction to Yoga therapy, Yoga for weight loss, Diabetes.

COOKERY**MODULE-1****0L+0T+12P+0SL = 12 Hours**

Preparation of Bread Halwa, Flavoured Milk, Veggie soups, Herbal Tea.

MODULE-2**0L+0T+18P+0SL = 18 Hours**

Fritters, Rasagulla, Onion Samosa, Soya Nuggets, Dhokla, Cutlet.

VIDEO EDITING**MODULE-1**

0L+0T+12P+0SL = 12 Hours

Necessity & Principles of Editing, Editing for the genre, Film Appreciation, Digital Filmmaking.

MODULE-2**0L+0T+18P+0SL = 18 Hours**

Post Production Tools, Film Editing Styles, Audio Editing and Production, Enhancing Video with Color Grading, Advanced editing techniques, Motion Graphics & Video Editing Portfolio Development.

GERMAN**MODULE-1****0L+0T+12P+0SL = 12 Hours**

Alphabet, numbers, greetings, geschwister.

MODULE-2**0L+0T+18P+0SL = 18 Hours**

Familie,wo wohnen sie, nachbarn von familie wiegel, inline skaten, wetter, fernsehen, Hobbies.

FRENCH**MODULE-1****0L+0T+12P+0SL = 12 Hours**

Pour saluer, Les jours de la semaine, Les mois de l' année.

MODULE-2**0L+0T+18P+0SL = 18 Hours**

Les nombres, Décrire l'heure, Les verbes être,avoir et aller, Les nationalités, Les professions, Les fruits et les legumes, Les adjectifs pour décrire une person.

PHOTOGRAPHY**MODULE-1****0L+0T+12P+0SL = 12 Hours**

Introduction to Photography, Photography Evolution, Different types of Nature lights.

MODULE-2**0L+0T+18P+0SL = 18 Hours**

DSLR Parts and Types of DSLR's, Anatomy of Camera and Lenses, Types of Lenses, Photo framing, Image resolution, Exposure triangle.

APSSDC ELECTRICAL HOME**MODULE-1****0L+0T+12P+0SL = 12 Hours**

Understanding and testing of live switch boards, DB distribution boards, Staircase wiring, complete wiring of 1 BHK, 2 BHK.

MODULE-2**0L+0T+18P+0SL = 18 Hours**

Erection and maintenance of fan & tube light, Understanding the protection devices, 20 Minutes timer, LDR with timer control, Impulse relay.

APSSDC ELECTRONICS HOME

MODULE-1

0L+0T+12P+0SL = 12 Hours

Understanding of series and parallel connection of bulbs.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Working of ceiling fan, tubelight, mixer grinder, iron box.

BLOCK PRINTING

MODULE-1

0L+0T+12P+0SL = 12 Hours

Introduction to Kalamkari Painting, Tools and Materials for Kalamkari.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Basic Techniques and Sketching for Kalamkari, Dyeing Techniques for Kalamkari Introduction to Block Printing, Block Printing Techniques and Final Projects.

HANDCRAFTS

MODULE-1

0L+0T+12P+0SL = 12 Hours

Plastic bottle with Shilpkar work, Paper craft for room decoration, Wall hanging with ice cream sticks.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Table stand with cotton buds, 3D outline with bottle decoration, Thermocol work.

SELF DEFENSE BY TAEKWONDO

MODULE-1

0L+0T+12P+0SL = 12 Hours

Self Defense by Taekwondo- Side Wrist Grip Escape and Cross Wrist Grip escape, Side Wrist Grip - Arm Bar, Wrist Lock, Shoulder Lock.

MODULE-2

0L+0T+18P+0SL = 18 Hours

Double Wrist Grip Escape, Upper Double Grip Escape, Major Outer Reaping Throw, Major Hip Throw, One Arm Shoulder Throw.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Demonstrate proficiency in a variety of techniques	Apply	1	7,8,9,10,11
2	Identify, demonstrate and understand the structures and characteristics	Apply	1	7,8,9,10,11
3	Cultivate concentration, self-control, and emotional regulation.	Analyze	2	7,8,9,10,11
4	Demonstrate increased confidence and the ability to respond assertively and calmly in threatening situations.	Evaluate	2	7,8,9,10,11
5	Understand and apply sustainable and ethical practices.	Create	2	7,8,9,10,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS):



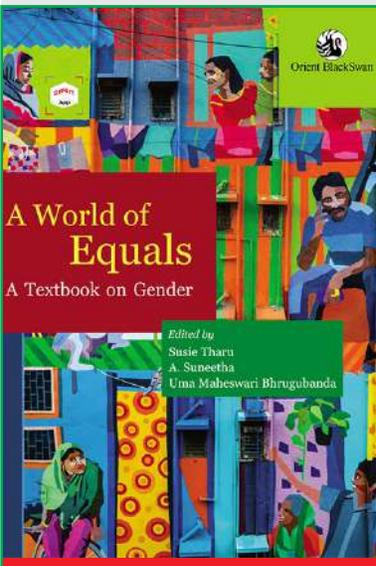


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22SA102 SELF-UNDERSTANDING AND GENDER SENSITIZATION

Hours Per Week

L	T	P	SL	C
0	0	2	0	1

PREREQUISITE KNOWLEDGE: Nil

COURSE DESCRIPTION AND OBJECTIVES:

To comprehend the dynamics of gender roles and relations within social and cultural contexts, and to evaluate legal and behavioral frameworks that promote gender equality and personal growth.

MODULE-1

0L+0T+12P+0SL=12 Hours

UNIT-1

UNDERSTANDING GENDER:

Concept of Gender: Distinction between Gender and Sex - Socialization and Gender Roles - Gender and Culture: Stereotypes and Social Conditioning - Gender-Based Violence: Forms, Impact and Prevention. **Shakti philosophy, contributions of women in Vedas.**

Activity-Based Learning: Group discussions on gender roles in media - Role plays on gender stereotyping - Case study analysis of real-life incidents of gender-based violence

UNIT-2

GENDER LAWS AND RIGHTS:

Gender and Labour: Equal Pay, Workplace Harassment, Maternity Benefits - Legal and Constitutional Provisions for Gender Equality in India: Article 14, 15, 16, 39, and 42, POSH Act, Domestic Violence Act, Dowry Prohibition Act - Women's Rights and Human Rights Framework. **Dharma-based equality, Sarvodaya philosophy.**

Activity-Based Learning: Legal case study presentations -Debate on gender justice and law implementation - Quiz on gender-related legal provisions

PRACTICES:

- Conduct a survey on gender roles and relations in the banking and IT sectors to assess employee attitudes and resistance to policy changes.
- Undertake a study to identify the impact of cultural perceptions on gender-based violence and its effects on workplace productivity.
- Analyze the characteristics and components of gender laws to evaluate their effectiveness in promoting labor rights and reducing gender discrimination.
- Perform a study on the determinants of gender roles and culture by reviewing media content and social norms to understand their influence on attitudes.
- Conduct a comparative analysis of constitutional and legal perspectives on gender equality to assess their impact on labor practices and gender sensitivity in various industries.

MODULE-2

0L+0T+18P+0SL=18 Hours

UNIT-1

SELF –EMPOWERMENT:

Self-awareness and Self-confidence -Building Personal Identity -Values and Ethics for Personal Growth - Goal Setting and Motivation.

Activity-Based Learning: Self-reflection journals - Vision board creation - Group sharing sessions

UNIT-2

PERSONALITY DEVELOPMENT SKILLS:

Types of Personality: Introvert, Extrovert, Ambivert - Good Manners and Professional Etiquette - Developing a Positive Attitude.

Activity-Based Learning: Role plays on etiquette, Personality-type assessment and group analysis, Positivity circles

UNIT-3

LIFE MANAGEMENT SKILLS:

Decision Making and Problem Solving - Interpersonal Communication Skills - Time and Stress Management - Conflict Resolution and Leadership.

Activity-Based Learning: Situational games for decision making, Time log and stress diary activity, Group project on conflict resolution strategies

PRACTICES:

- Survey on different personality types and their impact on workplace performance and team dynamics.
- Undertake a study on the effectiveness of etiquette training programs in improving professional interactions and workplace relationships.
- Analyze strategies for developing a positive attitude and their impact on employee engagement and job satisfaction.
- Conduct a study on time management practices and their influence on productivity and work-life balance.
- Perform a study on conflict management techniques and their effectiveness in resolving workplace disputes and improving team cohesion.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Analyze the influence of gender roles and cultural norms on individual behavior and social structures.	Analyze	6
2	Apply legal perspectives and gender laws to assess their impact on gender equality and labor rights.	Apply	6
3	Analyze various personality types and develop Strategies to apply good manners and etiquette in diverse settings.	Analyze	6
4	Apply decision-making and time management skills to enhance personal and professional effectiveness.	Apply	6
5	Analyze conflict management and leadership skills to effectively handle interpersonal and organizational Challenges.	Analyze	6

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS) :



REFERENCE BOOKS:

1. A World of Equals: A Textbook on Gender, Susie Tharu, Uma Maheswari Bhrugubanda (2022), Orient Blackswan Pvt. Limited.
2. Chitra Chellam (2022), Personality Development, Sara Book Publication.

SKILLS:

- ✓ Self Esteem Skills.
- ✓ Decision Making Skills.
- ✓ Problem Solving Skills.
- ✓ Team Building Skills.
- ✓ Interpersonal Skills.
- ✓ Leadership Skills.

22SS102 INDIAN KNOWLEDGE SYSTEMS

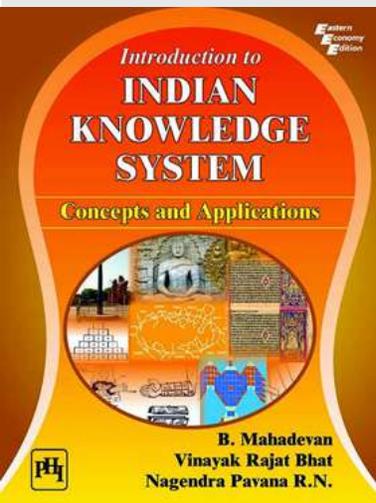


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Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE: High School – level knowledge on Indian history and society.

COURSE DESCRIPTION AND OBJECTIVES:

The course introduces students to India’s rich and diverse knowledge traditions and heritage. The profound insights, timeless wisdom, and diverse perspectives, originating from the ancient past have played a major role in shaping the country’s cultural identity. The richness of India’s intellectual heritage is vindicated by the existence of innumerable texts and thinkers in the country. By exploring India’s knowledge traditions, the course aims to help students learn how the country’s culture developed across the ages and to enable them look beyond conventional methods in finding solutions to scientific and technological issues.

MODULE-1

UNIT-1

0L+12T+0P+0SL = 12 Hours

INTRODUCTION TO INDIAN KNOWLEDGE SYSTEMS:

Definition, Scope, and Significance of IKS; Various Fields of Study in IKS (Science, Medicine, Arts, Linguistics, Philosophy, etc.); Key Texts and Sources of information for IKS: Vedic, Buddhist, Jain, and Other Traditions.

UNIT-2

PHILOSOPHICAL AND SCIENTIFIC FOUNDATIONS OF IKS:

Overview of Major Schools of Thought (Nyaya, Samkhya, Vedanta, etc.); Early Scientific and Technological Contributions (Mathematics, Astronomy, Medicine); Centers of Learning: Nalanda, Takshashila, and Others.

PRACTICES:

- Mapping IKS Disciplines – Create a chart or mind map showcasing various fields of study in IKS, including Science, Medicine, Arts, and Philosophy.
- Textual Exploration – Select and summarize insights from classical IKS texts (Vedas, Upanishads, Buddhist & Jain texts).
- IKS in Daily News – Collect newspaper articles on IKS-related discoveries (archaeological findings, indigenous technologies, art forms) and discuss their relevance.
- Field Visit/Virtual Tour – Explore ancient centers of learning like Nalanda and Takshashila (via museum visits, documentaries).
- Poster Display of Philosophers – Create visual profiles of prominent ancient philosophers (e.g., Charaka, Sushruta, Panini, Aryabhata).

MODULE-2

UNIT-1

0L+18T+0P+0SL = 18 Hours

DISCIPLINE-SPECIFIC INDIAN KNOWLEDGE SYSTEMS:

Role of IKS within the discipline (Science, Technology, or Law); Key Concepts and Applications within the discipline; Demonstration of IKS via real-life examples (Traditional Art, Architecture, and Indigenous Engineering Practices).

UNIT-2

RELEVANCE OF IKS IN THE MODERN WORLD:

Contributions of IKS to Global Knowledge Systems; Revival and Integration of IKS with Contemporary Science and Technology; Challenges and Opportunities in Preserving IKS.

UNIT-3

IKS AND SUSTAINABLE PRACTICES:

Indigenous Knowledge in Agriculture, Water Management, and Medicine; Environmental Ethics in Ancient Indian Traditions; Case Studies on Sustainable Development Using IKS.

PRACTICES:

- Discipline-Specific IKS Study – Research and present how IKS applies to law, governance, science, architecture, or technology.
- Exploring Indigenous Techniques – Engage in practical demonstrations of traditional knowledge such as Yoga, Meditation, Martial Arts (Karra Saamu), or Body Art.
- IKS Documentation Project – Collect and document indigenous knowledge traditions, such as traditional medicine, water harvesting, or agriculture.
- Awareness on Intellectual Property Risks – Use the internet to study indigenous intellectual properties that are at risk of international appropriation.
- Group Discussion on Challenges to IKS – Debate the modern relevance and challenges in preserving IKS, and propose solutions for its integration into science and technology.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply basic concepts of Indian Knowledge Systems to recognize their relevance in contemporary science, engineering, and society.	Apply	6, 11
2	Analyze selected indigenous practices in areas such as health, environment, water management, or architecture to understand their principles.	Analyze	6, 8, 9, 11
3	Evaluate the ethical and ecological values embedded in IKS and their relevance to sustainability and social responsibility.	Evaluate	6, 7
4	Develop an informed understanding of Indian Knowledge Systems by applying them in reflections, discussions, or illustrative examples.	Apply	6, 8, 9, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):



TEXTBOOKS:

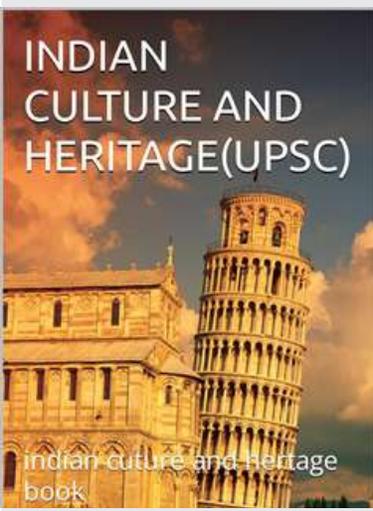
1. B. Mahadevan, Vinayak Rajat Bhat, Nagendra Pavana R. N., Introduction to Indian Knowledge System: Concepts and Applications, PHI Learning Private Limited, Delhi, 2023.
2. Mukul Chandra Bora, Foundations of Bharatiya Knowledge System, Khanna Book Publishing, 2023.

REFERENCE BOOKS:

1. Dhirendranath Banerjee and Sanjit Kumar Sadhukan (ed.), Ancient Indian Scientific Thought and Modern Theories: An Overview, National Mission for Manuscripts and D. K. Printworld, 2019.
2. Shaik Taufiq Khalil, Indian Knowledge System: Arthshastra by Kautilya, Notion Press, 2023.
3. Chauhan Bhag Chand, IKS: The Knowledge System of Bharata, Garuda Prakashan, 2023.

SKILLS:

- ✓ Ability to analyze and evaluate Indian Knowledge System (IKS) practices in the context of modern challenges.
- ✓ Problem-solving skills through the application of IKS principles to contemporary issues.
- ✓ Strong research skills in gathering and analyzing information related to IKS.
- ✓ Collaborative skills for preserving and promoting IKS.
- ✓ Enthusiasm for learning and practicing traditional skills such as weaving, pottery, and herbal medicine.



22SS103 INDIAN CULTURE AND HERITAGE

Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE: Basic understanding of Indian history and culture at the high school level.

COURSE DESCRIPTION AND OBJECTIVES:

This course introduces students to the foundational concepts, expressions, and institutions of Indian culture and heritage. Students will explore the richness of India’s tangible and intangible legacies-its philosophies, arts, knowledge systems, and monuments-while engaging with key values like unity in diversity, sustainability, and respect for tradition. The course emphasizes civic responsibility, heritage preservation, and the contemporary relevance of India’s cultural identity.

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MODULE-1

UNIT-1

0L + 12T + 0P + 0SL = 12 Hours

CULTURE AND HERITAGE – MEANINGS AND DIMENSIONS:

Definitions: Culture and Heritage; Distinction between tangible and intangible heritage; Core features of Indian culture (Sanskriti): unity in diversity, continuity, and pluralism; Role of heritage in shaping identity and nation-building.

UNIT-2

HISTORICAL ROOTS OF HERITAGE:

Harappan Civilization and its heritage: city planning, trade, and script; **Vedic culture** and religious texts as cultural heritage; Cultural impact of Buddhism and Jainism; Bhakti and Sufi traditions as living intangible heritage; Local traditions and oral culture across regions.

PRACTICES:

- Comparative poster/chart on tangible vs intangible heritage.
- Case study presentation: a local or regional tradition.
- Group presentation on an ancient site recognized by UNESCO.
- Write a short essay: “Why preserve heritage in the digital age?”

MODULE-2

UNIT-1

0L + 18T + 0P + 0SL = 18 Hours

TANGIBLE HERITAGE – ART, ARCHITECTURE, AND MONUMENTS:

Architectural diversity: Temples, Mosques, Churches, Stupas, Forts, Palaces, and Rock-cut caves; Notable heritage sites: Hampi, Qutub Minar, Taj Mahal, Konark, Charminar, Lepakshi Temple, Amaravati Stupa, and Victoria Memorial; Conservation challenges: environmental threats, pollution, neglect, urbanization, and insensitive tourism; Role of ASI and UNESCO World Heritage recognition.

UNIT-2

INTANGIBLE HERITAGE – KNOWLEDGE, FESTIVALS, AND VALUES:

Indian classical music and dance as living heritage; Traditional systems: Ayurveda, Yoga, and traditional ecological knowledge; Community-based practices: folk traditions and seasonal festivals; Core cultural values: non-violence, nature worship, family systems, and community life.

UNIT-3

HERITAGE PRESERVATION IN MODERN INDIA:

Heritage sense during the freedom struggle (e.g., revival of Khadi, Swadeshi art); National institutions preserving heritage: IGNCA, INTACH, and ASI; Digital documentation and cultural mapping initiatives; Youth and civic responsibility in heritage conservation.

PRACTICES:

- Virtual tour/report on a heritage site.
- Storyboarding: heritage in daily life.
- Role-play or debate: “Heritage vs. Modernity – Finding the Balance.”
- Case studies of successful community preservation efforts.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply key concepts of Indian culture and heritage to appreciate its role in shaping societal values and identity.	Apply	6, 11
2	Analyze the evolution and characteristics of India’s tangible and intangible heritage across regions and time.	Analyze	5, 6, 8
3	Evaluate contemporary challenges and strategies in preserving heritage through institutional and civic efforts.	Evaluate	6, 7, 8
4	Evaluate how cultural values can inform ethical decision-making, sustainability practices, and inclusive societal participation.	Evaluate	6, 7, 8

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):



TEXTBOOKS:

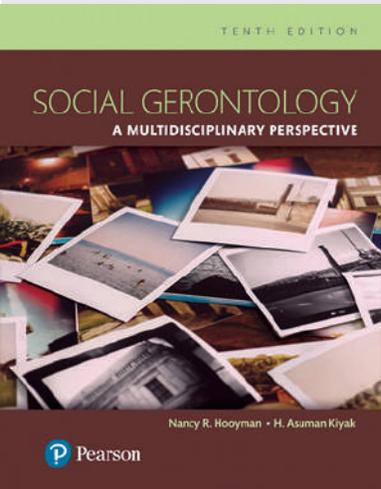
1. B. B. Satpathy, Indian Culture and Heritage, DDCE, Utkal University, 2015.
2. NIOS Course Material: Indian Culture and Heritage (223).
3. A.L. Basham, The Wonder That Was India, Vol.1, Rupa Publications, 1954.

REFERENCE BOOKS:

1. S. Radhakrishnan, Indian Philosophy: Volume I, 2nd ed., Oxford University Press India, 2008
2. Romila Thapar, The Penguin History of Early India: From the Origins to AD 1300, Penguin Books India, 2003.
3. John Keay, India: A History-Revised and Updated, Harper Collins, 2012.
4. Michel Danino, The Lost River; On the Trail of the Sarasvatī, Penguin Books India, 2010.

SKILLS:

- ✓ Cultural awareness and ethical reasoning.
- ✓ Visual, analytical, and storytelling skills.
- ✓ Heritage appreciation and preservation thinking.
- ✓ Inclusive and civic-minded citizenship.



22SS105 GERONTOLOGY

Hours Per Week :

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE: Basic understanding of Indian society, family structure, and human development from middle school social studies.

COURSE DESCRIPTION AND OBJECTIVES:

This course provides an introduction to gerontology - the study of aging. This course helps students explore what it means to grow old in India, the role of the elderly in Indian families and society, and how we can care for and support older adults. It aims to help students understand the complexities of aging, challenge common stereotypes, and appreciate the diversity of the older adult population in India. Students will learn about real-life challenges faced by older people and ways to build a more inclusive, respectful society.

MODULE-1

UNIT-1

0L+12T+0P+0SL = 12 Hours

UNDERSTANDING AGING: BIOLOGICAL AND PSYCHOLOGICAL PERSPECTIVES:

Defining Gerontology: Introduction to the field, and its importance, with a note on the demographic shift in India; Theories of Aging: Biological theories (e.g., cellular clock theory, free radical theory) and psychological theories (e.g., Erikson’s stages of psychosocial development, activity theory) and their applicability in the Indian context; Physiological Changes with Age: Common changes in body systems (e.g., cardiovascular, musculoskeletal, nervous) and common health challenges faced by older adults in India; Cognitive Changes with Age: Memory, attention, problem-solving, and the concept of cognitive reserve, with a focus on cognitive health in the Indian population; Mental Health in Later Life: Common challenges (e.g., depression, anxiety) and promoting well-being, considering cultural factors influencing mental health in older Indians.

UNIT-2

SOCIAL ASPECTS OF AGING AND DIVERSE EXPERIENCES IN INDIA:

Social Theories of Aging: Disengagement theory, continuity theory, socioemotional selectivity theory, and their relevance to Indian societal structures; Ageism and Stereotypes: Understanding prejudice and discrimination against older adults in India, challenging negative perceptions and cultural notions of aging; Family and Social Relationships: Role of the joint family system, nuclear families, friendships, and community networks in later life in India; Diversity in Aging in India: Exploring differences based on gender, rural/urban divide, socioeconomic status, religion, and regional variations in experiences of aging; Work, Retirement, and Leisure: Transitions in later life, challenges of formal and informal employment in old age, and the importance of meaningful engagement and traditional leisure activities.

PRACTICES:

- Create a “Grandparent Appreciation Poster” with stories or photos.
- Class discussion on respecting older people.
- Interview a grandparent or senior neighbour and share their experiences.

- Group discussions on common stereotypes about older adults in India and how to challenge them.

MODULE-2

SKILLS:

- ✓ Awareness of elderly rights and welfare mechanisms.
- ✓ Respect for cultural values and traditions towards elderly in India.
- ✓ Critical analysis of aging theories, stereotypes, demographic trends and policies with in Indian context.
- ✓ Understanding the diverse needs of older adults in India and societal responses.
- ✓ Interpretation of research data related to aging populations in India.
- ✓ Designing community-oriented aging interventions.

UNIT-1

0L+18T+0P+0SL=18 Hours

HEALTH, WELLNESS, AND CARE IN LATER LIFE IN INDIA:

Promoting Healthy Aging: Lifestyle factors (nutrition, traditional diets, yoga, exercise), preventive care and traditional Indian health practices (e.g., Ayurveda); Common Health Conditions: Chronic diseases (e.g., arthritis, diabetes, heart disease) prevalent in India and their management, including access to healthcare; Healthcare Systems for Older Adults in India: Public and private healthcare, challenges of access and affordability, role of family caregivers, and emerging long-term care options; Palliative and End-of-Life Care: Understanding hospice, advance directives, and grief in the Indian cultural context; Technology and Aging: Assistive technologies, telehealth, and their role in supporting older adults in India, considering digital literacy and access.

UNIT-2

AGING IN INDIAN SOCIETY: POLICIES AND COMMUNITY SUPPORT:

Aging-in-Place and Age-Friendly Communities: Concepts and practical applications in Indian cities and villages; Social Policies and Programs for Older Adults in India: National Policy on Older Persons, Maintenance and Welfare of Parents and Senior Citizens Act, government schemes and initiatives; Intergenerational Relationships: Benefits of connecting different age groups, role of grandparents, and promoting intergenerational harmony in India; Ethical Considerations in Gerontology in India: Autonomy, informed consent, elder abuse prevention, and legal protections for older adults; Global Aging: Demographic trends and challenges worldwide, with a specific focus on India's rapidly aging population and its implications.

UNIT-3

INDIAN HERITAGE AND CULTURE IN AGING:

Culture and Civilization: Key characteristics of Indian culture and their influence on perceptions and experiences of aging; Visual Arts: Architecture, Sculpture, and UNESCO Heritage Sites as reflections of historical attitudes towards elders and their contributions; Performing Arts: Classical Music, Dance, and Literature as expressions of wisdom, tradition, and the life cycle in India; Traditional Wisdom and Aging: Exploring concepts like "*vanaprastha*" and the reverence for elders in Indian philosophy and texts; Role of Spirituality and Religion: Impact of spiritual and religious practices on well-being in later life in India.

PRACTICES:

- Research on age-friendly initiatives in Indian communities.
- Debate on the ethical considerations surrounding emerging technologies in aging, particularly for the Indian demographic.
- Analysis of how Indian cultural heritage reflects and influences the concept of aging.
- Visit to a local elder care centre or old age home.
- Make a "Healthy Aging Tips" chart.
- Skit or role play on how to care for elders at home or in public.

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Understand and apply core concepts and theories of gerontology.	Apply	6, 7, 8, 9
2	Analyze the social determinants of aging and the diverse experiences of older adults in India.	Analyze	6, 7, 8, 9
3	Evaluate the healthcare needs and policy frameworks relevant to older adults in India.	Evaluate	6, 7, 8, 9
4	Design and assess community-based solutions for elder care.	Create	6, 7, 8, 9

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):



TEXTBOOKS:

1. Hooyman, N. R., & Kiyak, H. A., Social Gerontology: A Multidisciplinary Perspective. Pearson, 2018.
2. Quadagno, J., Aging and the Life Course: An Introduction to Social Gerontology. McGraw-Hill Education, 2017.

REFERENCE BOOKS:

1. Irudaya Rajan, S., India's Elderly: Burden or Asset? Routledge, 2016.
2. Prakash, I. J., Aging in India: A Sociological Perspective. Rawat Publications, 2009.
3. Kumar, A., Elderly in India: A Socio-Economic Profile. Serials Publications, 2011.
4. Moody, H. R., & Sasser, B. R., Aging: Concepts and Controversies. Sage Publications, 2018.
5. Paltasingh, Tattwamasi, & Tyagi, Renu, Caring for the Elderly: Social Gerontology in the Indian Context. Sage Publications, 2015.
6. Victor, Christina R., The Social Context of Aging: A Textbook of Gerontology. Routledge, 2005.

22ME102 DO IT YOURSELF

Hours Per Week :

L	T	P	SL	C
0	0	2	0	1

PREREQUISITE KNOWLEDGE: Nil

COURSE DESCRIPTION AND OBJECTIVES:

This course is to empower the learners with hands-on experience in designing, fabricating, and testing small-scale engineering systems or components. The course objective is to emphasize creativity, innovation, and real-world problem solving through “learning by doing.”

MODULE-1

0L+0T+12P+0SL = 12 Hours

FUNDAMENTALS OF CARPENTRY AND PLUMBING

UNIT-1

CARPENTRY:

Introduction to carpentry tools, use of tools for making simple objects like wooden shelf, picture frame, planters box, coat rack, floating shelves. *Śilpa Śāstra (Woodwork & Craftsmanship)*

UNIT-2

PLUMBING:

Introduction to Plumbing tools, use of tools for making simple objects like fitting of taps, faucets, shower heads, replacement of washers in taps, simple pipe joints, few installations

PRACTICES:

- Design and construct a stable and functional 3-tier bookshelf made from plywood or reclaimed wood using dowel joints and varnished for finish using measuring tape, saw, chisel, drill, wood glue.
- Construct a portable and sturdy 3-legged stool made of teak or pine with dowel or mortise joints using Mallet, wood rasp, chisel, clamps.
- Fabricate a safe and user-friendly wooden organizer for books with crate-style bins fixed on a frame with rounded corners for safety using sandpaper, saw, wood router
- Craft a custom wall art panel or divider using CNC-routed or hand-carved geometric or nature-themed panels using CNC router or jigsaw, sander, varnish.
- Make a small desktop stand with precision-cut grooves for gadgets and accessories to hold mobile phones, pens, and sticky note using Coping saw, file, drill press.
- Replace a worn-out rubber washer inside a leaking compression tap using adjustable spanner, flat-head screwdriver, replacement washer, PTFE tape.
- Install a downpipe from the terrace with filtration and diversion to a recharge well using PVC downpipes, filter mesh, first-flush diverter, underground pipe, stones.
- Install a new wall-mounted faucet to replace a broken head, using standard plumbing fittings, pipe wrench, adjustable spanner, pipe sealant tape.
- Plan and install a PVC-based water line with two tap outlets and one washing machine point using T- and elbow joints using PVC cutter, solvent cement, marker, sandpaper.
- Install outlet piping from a 500L overhead water tank to supply a bathroom, kitchen, and garden tap using gravity flow using HDPE pipes, ball valves, elbows, thread tape, support brackets.

SKILLS:

- ✓ *Accurate measuring, marking, and cutting of wood.*
- ✓ *Identification and use of plumbing tools and fittings.*
- ✓ *Operating FDM 3D printers.*
- ✓ *Safe handling of electrical tools and live circuits.*
- ✓ *Disassembly and reassembly of small appliances.*

MODULE-2**0L+0T+18P+0SL = 18 hours****DIY JOBS RELATED TO ADVANCED APPLICATIONS****UNIT-1****3D PRINTING:**

Introduction to the concept of FDM – 3D printing, printing of objects like spoon, mobile stand, pen holder, key chain

UNIT-2**HOME APPLIANCES:**

Introduction to tools used in assembling/repairing home appliances, assembling of ceiling fan, change of capacitor of fan, checking of faulty winding in electrical appliances, Preventive Maintenance of a Split AC System

.UNIT-3**HOUSE WIRING:**

Introduction to tools used in house wiring, fixing of tube light, fan, checking and repairing of a faulty fuse, fixing of a faulty switch/socket,

PRACTICES:

- List the steps you would follow to set up the printer, calibrate the build plate, and load the filament. What safety precautions should you take when handling the 3D printer?
- You need to print a simple personalized keychain with your initials using a 3D printer.
- You want to print a simple carabiner hook that will be used for carrying tools or equipment.
- You want to create a small, functional lock mechanism using 3D printing.
- You need to create a functional smartphone stand to hold your phone at an angle for watching videos or video calls.
- You have purchased a ceiling fan and wish to assemble and install it without professional help. List the sequence of steps you would follow to safely assemble and install the fan. What safety precautions must you take before beginning the installation?
- Your refrigerator seems to be cooling less effectively than usual. What simple checks and maintenance tasks can you perform yourself before calling a technician? Include cleaning, defrosting, and ventilation considerations.
- You have bought a new flat-screen TV and wall mount. What are the steps to assemble and mount it safely? What precautions must be taken regarding wire management and socket access?
- A tube light in your kitchen is flickering continuously and eventually stops working. After replacing the tube and starter, the issue persists. Describe the steps you would take to identify and fix the problem. What are the possible faulty components? How would you confirm if the ballast needs replacement?
- A room in your house loses power suddenly while other areas are unaffected. You suspect a blown fuse. How would you confirm this? Explain how to safely check and replace the fuse. What precautions should be taken to avoid future fuse failures?
- A wall switch that controls your living room light is no longer working — the light does not turn on even after changing the bulb. How would you go about checking the switch? What steps would you follow to replace it yourself, and how would you ensure it's safe to operate afterward?
- A socket in your bedroom is loose and occasionally sparks when plugging in devices. What are the risks involved, and how would you inspect and repair the socket? What are the signs that the socket needs replacement versus just re-tightening the connections?

COURSE OUTCOMES:

Upon successful completion of the course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Apply basic carpentry techniques to measure, cut, shape, and assemble wooden components using hand and power tools	Apply	1,5,6,7,10
2	Demonstrate the ability to install, maintain, and troubleshoot common residential plumbing systems	Apply	1,5,6,7,11
3	Design and fabricate functional 3D models using slicing software and additive manufacturing techniques	Create	1,5,10,11
4	Inspect, diagnose, and repair common faults in household appliances	Analyze	1,4,6
5	Construct safe and functional single-phase electrical wiring circuits for lighting, switching, and plug points	Evaluate	1,2,6,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGS) AND INDIAN KNOWLEDGE SYSTEM (IKS):



TEXTBOOK:

1. “Basic Electrical Installation Work” by Trevor Linsley.

REFERENCE BOOKS:

1. “3D Printing and Additive Manufacturing: Principles and Applications” by Chee Kai Chua & Kah Fai Leong.
2. “Ultimate Guide: Plumbing” by Merle Henkenius
3. “Carpentry Complete” by Andy Engel.

Programme Educational Objectives (PEOs)

PEO 1: Develop diverse capability to work with tractor and implement manufacturing industries, seed processing industries, irrigation and drainage companies and also to run self-entrepreneurship like dairy farming and custom hiring centers.

PEO 2: Take up higher studies in reputed institutes and motive towards innovative research by applying their skills in agricultural water management, farm machinery and power, processing and energy management systems in agriculture.

PEO 3: Understand the issues of ethics, safety, professionalism, cultural diversity, globalization, environmental impact and responsibility of serving the society and the environmental issues.

Programme Specific Outcomes (PSOs)

Graduates in Master's degree will be able to:

PSO 1: To utilize adequate knowledge in farm machinery and power engineering and to possess the competency to qualify various exams as well as to gain better employment opportunity in various industries.

PSO 2: To gain the proficiency by using the expertise to design and develop the farm machineries and implements as per the need of the area and farmers and come out with solution through farm power for smart agriculture.

PSO 3: To develop skills necessary to design, modify and direct for the manufacturing of agricultural machinery and implement for different agricultural production systems.

PSO 4: To abreast the students with mathematical, experimental and computational skills for solving different field problems.

PSO 5: To equip the students with technical knowledge and skills required for the operation, maintenance and evaluation of Tillage, Sowing and intercultural operational machinery needed for agricultural farms.

Student Outcomes (SOs)

SO 1: An ability to design and conduct experiments, as well as to analyze and interpret data

SO 2: An ability to design a system, component, or process to meet desired needs within

realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability

SO 3: The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context

SO 4: A recognition of the need for, and the ability to engage in, life-long learning

SO 5: Proficiency in mathematics, through differential equations, and relevant engineering sciences consistent with the discipline

SO 6: Knowledge of appropriate agricultural, and/or biological sciences, and/or natural resource topics

SO7: Competencies in relevant fields such as: biological materials, computer and automatic control systems, information systems, machine systems, modified environment design, natural resource systems, processing systems, and structural design

Programme Outcomes (POs)

The graduates of Computer Science and Engineering will be able to:

PO 1: Engineering knowledge: Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

PO 2: Problem analysis: Identify, formulate, research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

PO 3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.

PO 4: Conduct investigations of complex problems: using research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.

PO 5: Modern tool usage: Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO 6: The engineer and society: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.

PO 7: Environment and sustainability: Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

PO 9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.

PO 10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.

PO 11: Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PO 12: Project management and finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

M.Tech. FM

R22 C22 - COURSE STRUCTURE

Pre - Semester

Course Code	Title of the course	L	T	P	C	Course type
	Orientation Session	0	2	0	1	Binary graded
	IT workshop and cyber security	0	0	2	1	Binary graded
Total		4			2	

I Year I Semester

Course Code	Title of the course	L	T	P	C	Course type
22FMB101	Soil Dynamics in Tillage and Traction	2	2	2	4	Professional Core
22FMB102	Design of Tillage and Planting Equipments	2	2	2	4	Professional Core
22FMB103	Farm Power and Machinery Management	2	2	2	4	Professional Core
	Department Elective	2	2	2	4	Elective
	Teaching Assistantship	0	0	2	1	Binary graded
	Indian Knowledge System	0	2	0	1	Binary graded
	Work-in-lieu of a course*				2	Elective & Floating Credit
	Sub Total				20	
	Add on course -1				3	
	Total				23	

I Year II Semester

Course Code	Title of the course	L	T	P	C	Course type
22FMB104	Design of Plant Protection and Harvesting Equipments	2	2	2	4	Professional Core
22FMB105	Testing and Evaluation of Tractors and Farm Equipments	3	0	2	4	Professional Core
	Department Elective				4	Elective
	Department Elective				4	Elective
	Research Methodology and IPR	1	2	0	2	Interdisciplinary
	Interdepartmental Project	0	0	2	1	Project
	Teaching Assistantship	0	0	2	1	Binary graded
	Sub Total				20	
	Add on course -2				3	
	Total				23	

II Year I Semester

Course Code	Title of the course	L	T	P	C	Course type
	Internship / Project	0	2	24	13	Project
	Sub Total	0	2	24	13	
	Add on course -3 (MOOCs Course)				3	
	Total				16	

II Year II Semester

Course Code	Title of the course	L	T	P	C	Course type
	Internship / Project	0	2	24	13	Project
	Sub Total	0	2	24	13	
	Add on course -4 (MOOCs Course)				3	
	Total				16	

DEPARTMENT OF AGRICULTURAL ENGINEERING
DIVISION OF FARM MACHINERY
MANDATORY COURSES

S.No.	Course Code	Name of the course	L	T	P	C
1.	22FMB102	Design of Tillage and Planting Equipments	2	2	2	4
2.	22FMB104	Design of Plant protection and Harvesting Equipments	2	2	2	4
3.	22FMB101	Soil Dynamics in Tillage and Traction	2	2	2	4
4.	22FMB105	Testing and Evaluation of Tractors and Farm Equipments	3	0	2	4
5.	22FMB103	Farm Power and Machinery Management	2	2	2	4

ELECTIVE COURSES

S.No.	Course Code	Name of the course	L	T	P	C
1.	22FMB801	Ergonomics and Safety in Farm Operations	2	0	2	3
2.	22FMB802	Applied Instrumentation in Farm Machinery and Stress Analysis	2	0	2	3
3.	22FMB803	Tractor Design	2	0	2	3
4.	22FMB804	Power Hydraulics	2	0	2	3
5.	22FMB805	Land Grading and Earth Moving Machinery	2	0	2	3
6.	22FMB806	Horticulture and Forestry Equipment	2	0	2	3
7.	22FMB807	Controlled Environment Agriculture	2	0	2	3
8.	22FMB808	Product Manufacturing Technology	2	0	2	3
9.	22FMB809	Farm Machinery Dynamics, Noise and Vibration	2	0	2	3
10.	22FMB810	Engineering Properties of Food Materials	2	0	2	3

11.	22FMB811	Geo-informatics and Nano-Technology for Precision Farming	2	0	2	3
12.	22FMB812	Dimensional Analysis and Similitude	2	0	2	3
13.	22FMB813	Machinery for Horticulture and protected agriculture	2	0	2	3
14.	22FMB814	Machinery for Precision Agriculture	2	0	2	3
15.	22FMB815	Foundation skills in integrated product development	2	0	2	3

ADD-ON CERTIFICATION COURSES

S.No.	Course Code	Name of the course	L	T	P	C
1.		Machine Learning for Soil and Crop Management	3	0	0	3
2.		Applied Optimization for Wireless, Machine Learning, Big Data	3	0	0	3
3.		Advanced Robotics Applications	3	0	0	3
4.		Principles Of Vibration Control	3	0	0	3
5.		Energy Conversion Technologies (Biomass And Coal)	3	0	0	3
6.		Remote Sensing and GIS for Rural Development	3	0	0	3
7.		Energy Resources, Economics, and Sustainability	3	0	0	3
8.		Traction Engineering	3	0	0	3
9.		Sensors and Actuators	3	0	0	3
10.		Applied Ergonomics	3	0	0	3

M.Tech Coordinator

Head of the Department

SYLLABUS

MANDATORY COURSES

22FMB101 - SOIL DYNAMICS IN TILLAGE AND TRACTION

Hours per week:

L	T	P	C
2	2	2	4

PREREQUISITE KNOWLEDGE:

Acquaintance of basic knowledge about tillage equipment's and soil mechanics.

COURSE DESCRIPTION AND OBJECTIVES:

To acquire knowledge regarding mechanics of tillage tools, scouring of soil and importance, determine K_c and K_ϕ using plate shrinkage test, wheel slip and its role in traction mechanism, slip measurement and slip control method, rolling resistance and effect of tyre size inflation pressure and lug height on tractive performance, study of effect of soil compaction by agricultural machinery.

MODULE-1

UNIT-1

6L+6T+6P=18 Hours

Mechanics of tillage tools: Introduction: Inclined, Vertical, Wide blades, Cutting of soil. Scouring of soil and its importance, Soil compaction by Agricultural machines and Tractors. Remedies for soil compaction. Techniques for measuring terrain values and load sinkage relationship.

UNIT-2

Determination of K_c and K_ϕ using plate sinkage test. Shear stress, displacement relationship in sinkage and horizontal deformation, slip, sinkage and vertical load.

PRACTICES:

1. To study the effect of soil compaction by agricultural machines.
2. Determination of soil movement on M.B. Plough.
3. To study about wheel slip of tractor in field conditions.

4. Determination of soil movement on Disc Plough

MODULE-2

UNIT-1

18L+18T+18P= 54 Hours

Motion resistance of a rigid wheel and a track. Tractive efforts developed by a wheel and a track. Wheel slip and its role in traction mechanics.

UNIT-2

Slip measurement and slip control method. Mobility number and effect of mobility number on tractive effort. Rolling resistance and effect of tyre size inflation pressure and lug height on tractive performance.

UNIT-3

Performance and power analysis of tractor, matching of power, weight, speed and slip to obtain optimum power transmission. Cost analysis of machinery, selection of optimum machinery and replacement, case studies of agriculture mechanization.

PRACTICES:

1. Measurement of terrain parameters required for tractive performance for prediction of off-road vehicles.
2. Determination of pull-slip curve for a tarmacadam and field condition.
3. Determination of pull-slip curves for a farm tractor on different terrains.
4. Study of rolling resistance and tractive efficiency of rigid, pneumatic and track types vehicles.

COURSEOUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Estimate the soil compaction for different types of machines in the field.	Evaluate	1	1,2,4,5,6,8,9,10
2	Analyse the different techniques to measure the terrain values.	Analyse	1	1,2,6,8,10
3	Estimation of Kc and K ϕ values for different soils	Evaluate	1	1,2,4,5,6,8,9,10
4	Analyse the impact of tyre inflation pressure on slippage	Analyse	2	1,2,6,8,10,11

5	Analyse the effect of various parameters on optimum power transmission	Analyse	2	1,2,6,8,10,11,12
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MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS):

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Traditional farming practices (e.g., multi-cropping, indigenous plough designs) integrated with modern tools.
SDG 7 – Affordable & Clean Energy	Ancient practices of energy efficiency in irrigation (Persian wheels, bullock-driven devices).
SDG 9 – Industry, Innovation & Infrastructure	Indigenous innovations in agricultural implements as foundation for modern design.
SDG 12 – Responsible Consumption & Production	Traditional sustainable practices in soil conservation and minimal resource wastage.
SDG 13 – Climate Action	Traditional water harvesting, soil fertility management, and eco-friendly farming practices.
SDG 15 – Life on Land	Vedic and Ayurvedic references to soil as a living system, emphasizing balance with nature.

TEXT BOOKS:

1. Gill, W. R. And Vanden Berg, Soil Dynamics in Tillage, Hand book No.316, US Department of Agriculture, 1998.
2. Wong, J. Y. Theory of Ground Vehicle, John Willey & Sons, New York, 2008.

REFERENCE BOOKS:

1. Bekker, M. G. Theory of Land Locomotion, University of Michigan Press, USA, 2006.
2. Bekker, M. G. Off-Road Locomotion, University of Michigan Press USA, 2009.
3. Bekker, M. G. Introduction of Terrain Vehicle System, Michigan, USA, 1999.
4. Karafaith, L. L. and A. A, Nowatzki, Soil Mechanics for Off-Road Engineering, Tran Tech. Pub. Switzerland, 1998.
5. Mohesin N. N. 2000. Physical properties of plant and animal materials “Gorden & Breach Science Publishers, New York.

SKILLS:

- Measurement of tractive performance of off-road vehicles
- Measurement of soil compaction of off-road vehicles



Image source link:

<https://th.bing.com/th/id/OIP.ev7khOITx1J8cm7iWc8AmQHaj4?rs=1&pid=ImgDetMain>

Image file name: Soil Dynamics in Tillage and Traction

22FMB102 - DESIGN OF TILLAGE AND PLANTING EQUIPMENT

Hours per week:

L	T	P	C
2	2	2	4

PREREQUISITE KNOWLEDGE:

Fundamentals of design criteria and basic knowledge of different agricultural machines

COURSE DESCRIPTION AND OBJECTIVES:

To learn about farm machinery design principles, design of working components of M.B. plough, secondary tillage equipment, types of metering devices and their working, and safety devices for tractor and farm implements.

MODULE-1

6L+6T+6P=18 Hours

UNIT-1: FARM MACHINERY DESIGN PRINCIPLES

Introduction of Engineering design, farm machinery design, design parameters of farm machinery, modern farm machines. Design of power transmission components and systems in Agricultural machines.

UNIT-2: DESIGN OF PRIMARY TILLAGE IMPLEMENTS

Design of working components of a M.B. Plough: Share, forces acting on the M.B. plough. Design of working component of a disc plough: disc and forces acting on discs of disc plough.

PRACTICES:

1. Statement and formulation of design problems.
2. Design of share of Mould board plough.
3. Design of disc plough.
4. Force analysis on tillage implements and location of center of resistance on M.B. plough

MODULE-2

18L+18T+18P=54 Hours

UNIT-1: DESIGN OF SECONDARY TILLAGE EQUIPMENT

Disc harrow, cultivators, Seeding machines: Types of metering devices and their working.

UNIT-2: DESIGN OF SECONDARY TILLAGE EQUIPMENT

Procedure of design of fluted roller, horizontal plate type metering devices and seed and fertilizer boxes.

UNIT-3: DESIGN FOR SAFETY AND RELIABILITY

Safety devices for tractors and farm implements. Cabs & HVAC designs- designs of ROPS and FOPS, safety locations of PTO. Reliability criteria in design of farm/seed to management machinery and its application. Development of product reliability

PRACTICES:

1. Statement and formulation of design problems.
2. Design of share of mould board plough.
3. Design of disc harrow.
4. Design of seed metering mechanism.
5. Design of seed hopper for seed drill.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Application of design principles in agricultural machinery	Apply	1	1,5,6,8
2	Design of mould board plough	Create	1	1,3,4,5,9
3	Analysis of different types forces acting on mould board plough	Analyse	1	1,2,4,6,7
4	Design of seeding machines and different	Create	2	1,2,3,4,5,8,12

	types of metering mechanisms			
5	Analyse the reliability criteria in design of farm machinery	Analyse	2	2,4,5,6,7,11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS):

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Indigenous plough designs (nati plough, wooden ploughs) and traditional sowing practices form the base for modern implements.
SDG 7 – Affordable & Clean Energy	Traditional use of animal power and water wheels demonstrates sustainable low-energy solutions.
SDG 8 – Decent Work & Economic Growth	Ancient guild systems and cooperative farming models emphasize collective prosperity.
SDG 9 – Industry, Innovation & Infrastructure	Indigenous innovations in tools and implements have always been foundations for rural industries.
SDG 12 – Responsible Consumption & Production	Traditional emphasis on durability (iron-smithy tools, seed preservation) supports eco-friendly design.
SDG 13 – Climate Action	Ancient soil fertility management (composting, crop rotation) highlights eco-conscious farming.
SDG 15 – Life on Land	Vedic and Ayurvedic texts treat soil as a living system, stressing harmony with land resources.

TEXT BOOKS:

1. Sharma, D. N. And Mukesh S. Farm Machinery Design. Principles and problems. Jain Brothers, East Park Road, New Delhi, 2010.
2. Kepner R. A., Bainer Ray and Barger E. L. Principle of Farm Machinery, AVI Pub., 1 Jan 2005.
3. Varshney A.C. Data Book for Agricultural Machinery Design, Central Institute of Agricultural Engineering, 2004.
4. Kurtz. G., Thompson, L. and P. Claar. Design of Agricultural Machines, John Willey and sons, 1994.

REFERENCE BOOKS:

1. Ralph Al cock. Tractor Implement System. AVI Pub.1996.
2. Bernacki, H. Kanafozski, O and T. Karvowski. Agriculture machines. Theory and Construction. Vol. I and II, translated and published by US Dept. of Agriculture,

1996.

3. Bosoi, E. S. Vermaiev, O V, S Mirnov, I.I. and Sultan–Shakh, E. G. Theory, construction and calculation of agriculture machines, A. A Balkema Pub. Rotterdam, 1998.
4. Gyachev, L. V. Theory of surfaces of plow bottoms, A. A Balkema Pub., Rotterdam, 1997.
5. Nartov, P. S. Disc Soil Working implements, A. A. Balkema Pub. Rotterdam, 1996.

SKILLS:

- Design of primary tillage equipment
- Design of secondary tillage equipment



Image source link: <https://www.deere.com/assets/images/region-4/products/attachments/attachments-and-implements/utility-tractor-attachments-accessories/frontier-tillage-hero-r4d000207.jpg>

Image file name: Design Of Tillage and Planting Equipment

22FMB103 - FARM POWER AND MACHINERY MANAGEMENT

Hours per week:

L	T	P	C
2	2	2	4

PREREQUISITE KNOWLEDGE:

Fundamental use of different powers in agriculture and basic machineries used for farm operations.

COURSE DESCRIPTION AND OBJECTIVES:

To acquaint with importance of farm mechanization in Indian agriculture, estimation of operating cost of tractor and farm machinery, tractor power performance, selection of farm machinery and selection of proper power.

MODULE-1

6L+6T+6P=18 Hours

UNIT-1

Importance and objectives of farm mechanization in Indian Agriculture: benefits of agricultural mechanization, input savings, increase in efficiency, social benefits, size of land holding in India, mechanization, power sources and productivity, estimates of investments by farmers in farm machinery, research and development, production and extension system.

UNIT-2

Quality of farm machinery and training, adoption and impact of agricultural mechanization and future strategies for mechanization. Estimation of operating cost of tractors, estimation of fuel consumption for full and part loads and farm machinery.

PRACTICES:

1. Study of latest development of different agricultural equipment and implements in India and other developing countries.
2. Experimental determination of field capacity of different farm machines.
3. Estimation of cost to complete the unit area by using primary tillage implement

4. Estimation of field capacity and field efficiency of secondary tillage equipments

MODULE-2

18L+18T+18P=54 Hours

UNIT-1

Management and performance of power, operator, labour, economic performance of machinery, field capacity, field efficiency and factors affecting field efficiency.

UNIT-2

Tractor power performance in terms of PTO, drawbar and fuel consumption. Power requirement problems to PTO, DBHP. Selection of farm machinery, size selection, timeliness of operation, optimum width and problem related to its power selection; selecting proper power level and problem related to it.

UNIT-3

Reliability of agricultural machinery. Replacement of farm machinery and inventory control of spare-parts. Systems approach to farm machinery management and application of programming techniques to farm machinery selection and scheduling.

PRACTICES:

1. Size selection of agricultural machinery based on the size of power unit.
2. Study and selection of suitable farm machinery in relation to crop yield.
3. Determination of optimum machinery system for field crop and machine constraints.
4. Measurement of tractor PTO speed and specific fuel consumption

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1.	Selection of appropriate machinery and power source for their effective utilization on the mechanized farm	Apply	1	2,3,5,7,8,11
2.	Develop an optimum farm machinery management practices for the farm	Create	1	1,3,4,6,8,10,11,12

3.	Develop decision supporting systems for tractor and farm machinery	Create	2	1,3,4,6,8,10,11,12
4.	Apply the computer and internet for the management of farm resources and outputs	Apply	2	1,3,5,6,7,8,9,10
5.	Apply programming techniques to farm machinery selection and scheduling	Apply	2	1,3,5,6,7,8,9,10,11

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Ancient Indian farming emphasized timely operations (Ritu-based farming, Panchang-guided sowing).
SDG 7 – Affordable & Clean Energy	Traditional energy-efficient practices like bullock power, Persian wheels, and bio-energy.
SDG 8 – Decent Work & Economic Growth	Cooperative labour systems (Kudimaramath, Balutedari) in Indian villages ensured equitable work distribution.
SDG 9 – Industry, Innovation & Infrastructure	Indigenous innovations in irrigation devices, ploughs, and storage structures are precursors to modern machinery.
SDG 12 – Responsible Consumption & Production	Ancient storage systems (granaries, seed preservation in earthen pots) minimized waste and promoted sustainability.
SDG 13 – Climate Action	Traditional eco-friendly farming systems (composting, natural fertilizers) ensured low carbon footprint.
SDG 15 – Life on Land	Indian knowledge values “Bhumi” (soil) as sacred, stressing balance and protection of land resources.

TEXT BOOKS:

1. Culpin, C, Profitable farm mechanization, Lock Wood & Sons, London, 2006.
2. Hunt, D, Farm Power and Machinery Management, Iowa State University Press, USA, 1999.
3. Singh, S. And Verma, S. R. Farm Machinery Maintenance and Management. DIPA, ICAR, KAB-I, New Delhi, 2001

REFERENCE BOOKS:

1. Carville, L. A. (1999). Selecting farm machinery. Louisiana Cooperative Extn.

Services publication.

2. Watters, W. K. (2001) Farm Machinery Management guide. Pennsylvania Agri.Extn. Services Spl. Circular No 2002.
3. F A O (2018). Agricultural Engineering in develop: selection of mechanization inputs, F A O, Agri. Service Bulletin.

SKILLS:

- Matching of tractor and machinery
- Application of programming techniques to farm machinery selection and scheduling



Image source link: <https://www.upaharbazar.com/wp-content/uploads/2023/08/farm-power-and-machinery-management.jpg>

Image file name: Farm Power and Machinery Management

22FMB104 - DESIGN OF PLANT PROTECTION AND HARVESTING EQUIPMENT

Hours per week:

L	T	P	C
2	2	2	4

PREREQUISITE KNOWLEDGE: Fundamental knowledge about different types of sprayer, dusters, working principles of all types of sprayer and selection of suitable sprayer for specific use.

COURSE DESCRIPTION AND OBJECTIVES:

To learn about farm machinery design principles, design of components of sprayers and dusters, design parameters of a fertilizer distributor and their working, design of harvesting equipment's and safety devices for tractor and farm implements.

MODULE-1

UNIT-1

6L+6T+6P=18 Hours

Fundamentals and economic considerations for design consideration for development of plant protection and harvesting machinery.

UNIT-2

Factors affecting the farm machinery design. Introduction of Machines for fertilizer application and discs type broadcasters.

PRACTICES:

1. Statement and formulation of design problems.
2. Design of manually and power operated plant protection equipment
3. Calibration, field testing and handling techniques of tall tree sprayer
4. Design of sprayer components – pumps, pressure vessel, nozzle and materials of construction.

MODULE-2

18L+18T+18P=54 Hours

UNIT-1

Design of pumps and atomizing devices for sprayers. Fertilizer handling equipment and

their design consideration. Design of centrifugal broadcaster. Design of duster.

UNIT-2

Design consideration of threshing and harvesting equipment in reference to types of cylinder, design of threshing cylinder and safety measures. Forces acting on a cutter bar of a reaper.

UNIT-3

Safety devices for harvesting and threshing machinery. Manufacturing limits and fits in harvesting and threshing machinery. Material bill and construction cost in harvesting and threshing machinery project design.

PRACTICES:

- 1.Design of cylinder for a multi-crop thresher.
- 2.To compare design criteria for different harvesting machines.
- 3.To compare design considerations in different types of power threshers.
- 4.Study of various safety devices for threshers and harvesters

COURSEOUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Application of design principles for design different types of sprayer	Apply	1	1,5,6,8
2	Design of centrifugal broad caster	Create	1	3,4,5,8
3	Analysis of different design consideration of threshing and harvesting equipment	Analyse	2	2,4,5,6,7,11
4	Analysis of Safety devices for tractors and farm implements	Analyse	2	2,4,5,6,9
5	Application of reliability criteria in design of farm machinery	Apply	2	1,5,6,8,11,12

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Traditional crop protection methods (ash dusting, neem extracts, manual threshing) ensured food security.
SDG 3 – Good Health & Well-Being	Ayurveda-based natural pesticides (Neem, Tulsi, Cow urine preparations) highlight health-centric protection.
SDG 7 – Affordable & Clean Energy	Indigenous use of manual and animal-powered devices for spraying and threshing reflects low-energy solutions.
SDG 8 – Decent Work & Economic Growth	Traditional cooperative work systems (e.g., <i>Polygars</i> , <i>Kudimaramath</i>) highlight community-based agricultural efficiency.
SDG 9 – Industry, Innovation & Infrastructure	Rural artisans historically innovated low-cost tools (sickles, hand threshers) forming the base for modern designs.
SDG 12 – Responsible Consumption & Production	Ancient emphasis on durability and repairability of farm tools ensured sustainable consumption.
SDG 13 – Climate Action	Traditional organic farming minimized chemical use, showing climate-resilient practices.
SDG 15 – Life on Land	Indian farming philosophy (<i>Bhumi Sukta</i> in Rigveda) treats land and crops as sacred resources to be preserved.

TEXT BOOKS:

1. Sharma, D. N. And Mukesh S. Farm Machinery Design. Principles and problems. Jain Brothers, East Park Road, New Delhi, 2010.
2. Kepner R. A., Bainer Ray and Barger E. L. Principle of Farm Machinery, AVI Pub., 1 an 2005.
3. Varshney A.C. Data Book for Agricultural Machinery Design, Central Institute of Agricultural Engineering, 2004.
4. Kurtz. G., Thompson, L. and P. Claar. Design of Agricultural Machines, John Willey and sons, 1994.

REFERENCE BOOKS:

1. Ralph Al cock. Tractor Implement System. AVI Pub. 1986.
2. Bernacki, H. Kanafozski, O and T. Karvowski. Agriculture machines: Theory and Construction. Vol.I and II, translated and published by US Deptt. Of Agriculture,

1996.

3. Bosoi, E. S. Vermiaev, O V, Smirnov, I. I. And Sultan–Shakh, E. G. theory, construction and calculation of agriculture machines, A. A Balkema Pub., Rotterdam, 1998.
4. Gyachev, L. V. Theory of surfaces of plow bottoms, A. A Balkema Pub. Rotterdam, 1997.
5. Nartov, P. S. Disc Soil Working implements, A. A. Balkema Pub. Rotterdam, 1996.

SKILLS:

- Design Plant protection equipment
- Design harvesting equipment
- Design threshing equipment



Image source link: <https://www.deere.ca/assets/images/region-4/products/harvesting/tseries-combine-r2C001197-1920x1080.jpg>

Image file name: Design of Plant Protection And Harvesting Equipment

22FMB105 - TESTING AND EVALUATION OF TRACTORS AND FARM EQUIPMENT

Hours per week:

L	T	P	C
3	0	2	4

PREREQUISITE KNOWLEDGE:

Fundamental knowledge of different types of tractor systems, adjustments of farm machinery, working of combine harvester and threshers.

COURSE DESCRIPTION AND OBJECTIVES:

To Gain knowledge about testing of agricultural machines and testing of farm tractor, tractor test code BIS: ISO: OECD and Nebraska testing institute

MODULE-1

UNIT-1

18L+0T+12P= 30 Hours

Importance and significance of testing and types of tests needed for testing of tractor, application of measurement techniques to testing procedures, measurement of power

UNIT-2

Testing of agricultural machines and procedures for evaluation of M.B. Plough, Disc Plough, Rotavator, Cultivator, Disc Harrow,

PRACTICES:

1. Testing of agricultural machines, Mould Board plough and Disc Plough following test codes.
2. Performance evaluation of Mould Board plough and Harrows.
3. Performance evaluation of Seed cum fertilizer/Planters drill
4. Performance evaluation of Weeders

MODULE-2

27L+0T+18P=45 Hours

UNIT-1

Testing of agricultural machines and procedures for evaluation of Seed cum fertilizer drill & planters, manual and power operated weeders.

UNIT-2

Testing of agricultural machines and procedures for evaluation of Plant protection machines, Reaper, Thresher and Chaff cutter, Combine harvesters.

UNIT-3

Testing of farm tractor – Tractor test codes: BIS: ISO: OECD and Nebraska testing institute.

PRACTICES:

1. Performance evaluation of plant protection equipments.
2. Performance evaluation of reapers.
3. Testing and performance of power thresher.
4. Testing of tractor as per BIS.

COURSEOUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	To apply with different instruments used in testing of agricultural machinery.	Apply	1	1,6,7,8
2	To analyse the standard testing procedures and rules.	Analyse	1	2,4,7,10
3	To analyse different test codes of ISO, RNAM, ASTM, ASABE etc.	Analyse	2	1, 2,9,12
4	Carry out performance evaluation of different agricultural implements	Evaluate	2	1,2,4,5,6,8,9,10,12

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Traditional validation of tools (trial methods for ploughs and sickles) ensured dependable food production.
SDG 7 – Affordable & Clean Energy	Indigenous reliance on renewable animal power and bio-energy highlights sustainable energy practices.
SDG 8 – Decent Work & Economic Growth	Rural craftsmanship and local innovations created job opportunities while supporting farm productivity.
SDG 9 – Industry, Innovation & Infrastructure	Indian blacksmithing and tool-making traditions served as early industry benchmarks in rural infrastructure.
SDG 12 – Responsible Consumption & Production	Ancient repair-oriented practices (sharpening, reforging, reuse of parts) minimized wastage.
SDG 13 – Climate Action	Organic and eco-friendly practices traditionally minimized environmental impact.
SDG 15 – Life on Land	Vedic emphasis on <i>Bhumi</i> (soil as sacred) highlights harmony with land and biodiversity.

REFERENCE BOOKS:

1. Anonymous.1993. RNAM Test Code & Procedures for Farm Machinery. Technical Series 12
2. Barger E L, Liljedahl J B & McKibben E C.1997. Tractors and their PowerUnits. Wiley Eastern.
3. Indian Standard Codes for Agril. Implements. Published by ISI, New Delhi.
4. Inns F M.1996. Selection, Testing and Evaluation of Agricultural Machines and Equipment. F A O Service Bull. No. 115.
5. Lal R & Dutta Pc. 1979. Agricultural Engineering (through solve examples). Saroj Parkashan,
6. Metha M L, Verma S R, Mishra S K & Sharma V K. 1995. Testing and Evaluation of Agricultural Machinery. National Agricultural Technology Information Centre, Ludhiana.
7. Nebraska Tractor Test Code for Testing Tractor, Nebraska, USA.
8. Smith DW, Sims BG & O'Neill D H. 2001. Testing and Evaluation of Agricultural Machinery and Equipment - Principle and Practice. FAO Agricultural Services Bull.110.

SKILLS:

- Testing of tillage equipment
- Testing of harvesting and threshing machinery
- Testing of tractor as per guidelines



Image source link: <https://kj1bcdn.b-cdn.net/media/83780/tractors.jpg>

Image file name: Testing and Evaluation of Tractors and Farm Equipment

ELECTIVE COURSES

22FMB801 - ERGONOMICS AND SAFETY IN FARM OPERATIONS

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE:

Acquaintance of knowledge about mental and physical stress as well as human being comfortable zone

COURSE DESCRIPTION AND OBJECTIVES:

To acquire the knowledge about human metabolism, Physical, mental stress, Muscular work efficiency, Effect of vibration on man and Human factors in tractor seating.

MODULE-1

12L+0T+12P=24 Hours

UNIT-1

Human factors in system development, importance, objectives, scope. The operator-machine-environment system approach, Human being in man-made world. Importance of ergonomics, ergonomic goals. Human tracking and human metabolism.

UNIT-2

Physiological parameter. Physical and mental stress, their nature and measurement techniques. Muscular work efficiency, fatigue and rest pauses.

PRACTICES:

1. Measurement of body dimensions of agricultural workers and relationship between them.
2. Calibration of human subject on bicycle ergo meter for its energy output and physiological parameters like heartrate, oxygen consumption rate under laboratory conditions.
3. Calibration of human subject on treadmill for its energy output and physiological

parameters like heart rate and oxygen consumption rate under laboratory conditions.

4. Evaluation of heat stress while calibrating the subject.

MODULE-2

18L+0T+18P=36 Hours

UNIT-1

Human factors in tractor seating, comfort and entry system. Control, shape, colour - coding, appearance, dial and indicators. Anthropometry and its application.

UNIT-2

Heat and cold stress. Measurement of energy; direct and indirect methods. Calibration of subjects. Physical load and its assessment, scaling of load, modes of work importance of postures for safety consideration in design of farm machinery. Safety consideration in farm operation.

UNIT-3

Effect of vibration on man, vibration measurement and vibration control. Effect of illumination, atmosphere, visibility, noise, dust concentration and toxicity on human being. Application of time motion study in agricultural operations. Modern technology used for comfort in driving places. BIS codes for tractor and machine safety.

PRACTICES:

1. Determination of muscular fatigue for selected agricultural tasks.
2. Study of noise levels for engine/tractor.
3. Study of vibrations in farm tractors and agricultural machines.
4. Study of standard time for selected farm operations

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Design of different Ergonomic models	Create	1	3,4,6,8,10,11,12
2	Analysis of various mental and physical	Analyse	1	1,2,4,6,8,10,11

	stress measurement techniques			
3	Application of human factors in tractor seating	Apply	1	1,3,5,6,7,8,9,10
4	Analysis of different safety factors in farm operations	Analyse	2	1,2,4,6,8,10,11
5	Estimation of vibration effects on human body (Operator)	Evaluate	2	1,2,4,5,6,8,9,10,12

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 3 – Good Health & Well-Being	Ayurveda and Yoga emphasize physical & mental balance, rest–work cycles, and breathing control to improve human performance.
SDG 4 – Quality Education	Ancient <i>Shilpa Shastra</i> and <i>Ayurvedic ergonomics</i> stressed proportion, balance, and human-centric design.
SDG 8 – Decent Work & Economic Growth	Traditional cooperative work culture (<i>Kudimaramath, Shramdaan</i>) emphasized worker well-being and safety.
SDG 9 – Industry, Innovation & Infrastructure	Indigenous craftsmanship (blacksmiths, carpenters) focused on tool design that matched human posture and comfort.
SDG 12 – Responsible Consumption & Production	Traditional repair–reuse approach in Indian farming tools emphasized long life and minimal wastage.
SDG 13 – Climate Action	Traditional low-energy human-powered and animal-powered systems demonstrated sustainable energy use.
SDG 15 – Life on Land	Indian farming philosophy emphasized harmony between humans, animals, and land (<i>Bhumi Sukta, Vedic farming</i>).

TEXT BOOKS:

1. Astrant, P.O. and K. Rodhal. A textbook of work physiology McGraw Hill Book Co., New York, 4th edition, 2022.
2. Cormic Mc ,E.J., Human Factors in Engineering Design, Tata McGrew Hill Pub., Co., New Delhi, 7th edition, 2019.

REFERENCE BOOKS:

1. Bridger R S, Introduction to Ergonomics. McGraw Hill, 4th edition, 2019.
2. IS12239. Tractors and Machinery for Agriculture and Forestry: Technical Means for Ensuring Safety. 1999.

SKILLS:

- Develop ergonomic models to test human metabolism
- Estimate the agricultural workers mental and physical stress
- Apply time motion study in agricultural operations



Image source link: <https://gpcah.public-health.uiowa.edu/wp-content/uploads/2017/02/Whole-Body-Vibration.jpg>

Image file name: Ergonomics and Safety in Farm Operation

22FMB802 - APPLIED INSTRUMENTATION IN FARM MACHINERY AND STRESS ANALYSIS

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE:

Basic knowledge about stress, strain, calorific value of a substance and use.

COURSE DESCRIPTION AND OBJECTIVES:

To get the knowledge about Strain, stress, measuring devices for displacement, active and passive transducers, calorific value measuring devices for solid, liquid, gaseous and data acquisition system.

MODULE-1

12L+0T+12P=24 Hours

UNIT-1

Measurement - methods - Instrument and classification of instruments-static and dynamic characteristics of instrument. General measurement system - Functional elements of a measurement system - Strain and stress: Strain relationship, strain-gauges; Mechanical, optical, electrical acoustical and pneumatic etc., and their use.

UNIT-2

Various methods of determining strain/stress experimentally. Measuring devices for displacement (linear and rotational), basic methods of pressure measurement, basic methods of force measurement, torque measurement on rotating shaft and shaft power.

PRACTICES:

1. Bonding of gauge, lead wire installation.
2. Testing of Gauge.
3. Study of temperature compensating gauge and their circuits.
4. Study of characteristics of equipment needed for static and dynamics train measurements.

MODULE-2

18L+0T+18P=36 Hours

UNIT-1

Strain-gauges: Types and their application in two- dimensional and three-dimensional force measurement. Introduction to functional elements of instruments. Active and passive transducers, analog and digital modes.

UNIT-2

Static and dynamic characteristics of instruments. Devices for measurement of temperature, relative humidity, pressure, flow, sound and vibration. Recording devices and their types.

UNIT-3

Measuring instruments for calorific value of solid, liquid and gaseous fuels. Data acquisition system, microcomputers, data storage and their applications.

PRACTICES:

1. Calibration of instruments.
2. Measurement of velocity, force, torque and shaft power.
3. Measurement of sound and vibration.
4. Study of modern trends in micro computer and data storage.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Estimation of stress and strain for different materials	Evaluate	1	1,2,4,5,6,8,9,10,12

2	Application of different devices to measure the linear and rotational displacement	Apply	1	1,3,5,6,7,8,9,10
3	Analyse the two and three-dimensional force measurement.	Analyse	2	1,2,4,6,8,10,11
4	Application of active and passive transducers.	Apply	2	1,3,5,6,7,8,9,10,12
5	Analysis of data acquisition system and microcomputers	Analyse	2	1,2,4,5,6,8,10,11

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 4 – Quality Education	Ancient Indian texts (e.g., <i>Sulba Sutras</i>) detailed precise measurement systems in construction and engineering.
SDG 7 – Affordable & Clean Energy	Traditional energy assessments (efficiency of water wheels, bullock carts) ensured minimal energy wastage.
SDG 8 – Decent Work & Economic Growth	Ancient craftsmanship (blacksmiths, architects) relied on precise measurements for productivity and safety.
SDG 9 – Industry, Innovation & Infrastructure	Indigenous innovations (astrolabe, gnomon, water clocks) show India’s legacy in measurement science.
SDG 12 – Responsible Consumption & Production	Traditional practices emphasized “ <i>Mita Upayoga</i> ” (measured/limited use of resources).
SDG 13 – Climate Action	Ancient farming and energy use emphasized eco-balance and sustainability.
SDG 15 – Life on Land	Vedic farming principles considered land (<i>Bhumi</i>) as sacred, promoting careful use and monitoring.

TEXT BOOKS:

1. Dove R. C. and Adams P. H. Experimental Stress Analysis (McGraw Hill, 1997)
2. Dally J.W. and Riley W.F. Experimental Stress Analysis (McGraw-Hill Inc., New York, 1998)
3. Srinath, L.S. and Raghavan M.R. Experimental Stress Analysis (Tata McGraw-Hill, 1998).

REFERENCE BOOKS:

1. Freddi A. Olmi G. and Cristofolini L. Experimental Stress Analysis for Materials and Structures (Springer, Switzerland, 2015)

2. Sharpe W.N. Handbook of Experimental Solid Mechanics (Springer, 2008)
3. Kandil F.A., Lord J.D., Fry A.T. and Grant P.V. A review of residual stress measurement methods A guide to technique selection (NPL Report MATC(A) 04, February 2001, NPL
4. Kamal S.M. Borsaikia A. and Dixit U.S. Experimental assessment of residual stresses induced by the thermal autofrettage of thick-walled cylinders, Journal of Strain Analysis, Vol. 51(2), pp 144–160, 2016.

SKILLS:

- Develop a strain gauges to measure the stress and strain of different materials
- Estimate the different parameters of material and convert in to convenient form by using transducers
- Test data acquisition system to find out the different characteristics of testing system in different form.



Image source link:

<https://th.bing.com/th/id/R.b29b1ea44d0e60e7a132e35ec155fc96?rik=HKz4ULE%2f2XXTtw&riu=http%3a%2f%2fagreng.agr.uth.gr%2fssystem%2ffiles%2fimagepicker%2f18%2fMonosem.jpg&ehk=39rsm%2bV1SQkzToxvD9VAUT1qAHVBTY2nXWCDHYSK%2b6E%3d&risl=&pid=ImgRaw&r=0>

Image file name: Applied Instrumentation in Farm Machinery and Stress Analysis

22FMB803 - TRACTOR DESIGN

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE: Basic knowledge about different systems of tractor as well as working and need of all the individual components of tractor.

COURSE DESCRIPTION AND OBJECTIVES:

To acquire the knowledge about technical specifications of all the components of different systems of tractor from I C engine to power take off of a tractor.

MODULE-1

12L+0T+12P=24 Hours

UNIT-1

Introduction about design and development of Agricultural tractor, study of specific design features of tractor engines and their selection.

UNIT-2

Design of IC engine components: piston, piston pin and rings, connecting rod, crankshaft, cam shaft, valves.

PRACTICES:

1. Design of various IC engine components.
2. Experimental determination of Centre of gravity.
3. Performance evaluation of response time of automatic: depth control.
4. Performance evaluation of response time of automatic: position control

MODULE-2

18L+0T+18P=34 Hours

UNIT-1

Design of various components of three-point tractor hitch system geometry, kinematics and force analysis of hitch system geometry, hydraulic system design considerations,

design of main components of hydraulic system, tractor steering and suspension systems.

UNIT-2

Design of IC engine components: Engine block, cylinder and cylinder liners, cylinder head studs and valve spring, fuel injection systems and types, merits and demerits of each type

UNIT-3

Design of supercharging—general, turbo charging units and system. Transmission system: Types, transmission line, features of gear boxes used for farm tractor. Differentials, final drives and axles, power take off shaft.

PRACTICES:

1. Automatic draft control on a farm tractor.
2. Study of various hydraulic components in relation to design of hydraulic system of a farm tractor.
3. Study of performance evaluation of different transmission system.
4. Problems showing utilisation of hydraulics in farm machines.

COURSEOUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Analyse the mechanical specification of a tractor	Analyse	1	1,2,4,6,8,10,11
2	Design of piston of I C engine	Create	1	3,4,6,8,10,11,12
3	Analysis of importance of I C engine components	Analyse	2	1,2,4,6,8,10,11
4	Application of super charger and turbocharger in tractors	Apply	2	1,3,5,6,7,8,9,10,12
5	Analyse the features of gear boxes used for farm tractor	Analyse	2	1,2,4,6,8,10,11,12

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 4 – Quality Education	Ancient <i>Shilpa Shastra</i> and <i>Yantra Vidya</i> texts described engineering principles, fostering knowledge transfer and technical education.
SDG 7 – Affordable & Clean Energy	Traditional devices like <i>Persian wheels</i> , bullock-drawn ploughs, and water mills used renewable energy efficiently.
SDG 8 – Decent Work & Economic Growth	Indigenous draught animal technologies promoted labor efficiency and sustained rural economies.
SDG 9 – Industry, Innovation & Infrastructure	Ancient innovations in <i>Ratha (chariot)</i> construction, irrigation systems, and mechanical automata reflected advanced indigenous engineering.
SDG 12 – Responsible Consumption & Production	<i>Arthashastra</i> and <i>Vriksha Ayurveda</i> advocated sustainable use of resources and minimized wastage in production.
SDG 13 – Climate Action	Ancient Indian farming methods promoted low-carbon practices such as mixed cropping and natural soil fertility management.
SDG 15 – Life on Land	Vedic literature (e.g., <i>Bhumi Sukta</i> in Atharva Veda) emphasized harmony with soil and sustainable agriculture practices.

TEXT BOOKS:

1. Kolchin, A. and Dominov, V. Design of Automotive Engines, Mir Publishers, Moscow, 2004.
2. Liljidahl, B.J. Turnquist, P.K. Smith, W.D. and Hoki, Makato. Tractor and their powerunits, Forth Edition, Avi Publications, New York, 2009.

REFERENCE BOOKS:

1. Lityc, C.V., Internal Combustion Engines, McGrawHill Pub., New York, 2018.
2. Maleev, V.L., Internal Combustion Engines, McGrawHill Pub., New York, 2020.

SKILLS:

- Testing of different output powers of a tractor
- Develop a suitable prime mover for small land holders
- Estimate and match the suitable attachment as per the developed tractor power



Image source link: <https://static.country-guide.ca/wp-content/uploads/2021/02/17121059/prototype.jpg>

Image file name: Tractor Design

22FMB804 - POWER HYDRAULICS

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE:

Application of hydraulic system in a tractor and basic knowledge about working principle of pumps, cylinder and piston

COURSE DESCRIPTION AND OBJECTIVES:

To get the knowledge about principle of hydraulic system, hydraulic pumps, calculation of hydraulic force equipment, different types of hydraulic valves, power steering, power brakes and tractor hydraulics.

MODULE-1

12L+0T+12P=24 Hours

UNIT-1

Hydraulic principles: Hydraulic pumps, types, circuits and drives. Hydraulic valves- pressure control valves, flow control valves, directional control valves, cartridge valves and strength calculations.

UNIT-2

Hydraulic cylinders – displacement, single and double acting, acceleration and deceleration of cylinder loads, cylinder mounting and strength calculation.

PRACTICES:

1. Study of various hydraulic pumps.
2. Study of hydraulic valves.
3. Study of directional control valves.
4. Study of hydraulic cylinder piston arrangements.

MODULE-2

18L+0T+18P=34 Hours

UNIT-1

Semi-rotary actuator – type and control. Hydraulic motors and circuit. Hydraulic fluid – properties and future development.

UNIT-2

Fluid contamination – types and control. Filter construction and filtration technology.
Leakage control in hydraulic system.

UNIT-3

Control system – servo control, valve servo system, pump servo system and proportional valves. Use of hydraulic and pneumatic drives in agricultural systems: power steering, power brakes and tractor hydraulics.

PRACTICES:

1. Study of engineering properties of hydraulic fluids.
2. Study of hydraulic system of tractor.
3. Study of hydraulic steering system.
4. Study of problem related to hydraulic control system.
5. Study of hydraulic motors.

COURSEOUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Analyse working of different components of hydraulic system	Analyse	1	1,2,4,6,8,10,11
2	Estimation of loads and strength of hydraulic components	Evaluate	1	1,2,4,5,6,8,9,10
3	Analyse the properties of hydraulic fluids	Analyse	2	1,2,4,5,6,8,10,11
4	Application of hydraulic principle in power steering, power brakes of a tractor	Apply	2	1,3,5,6,7,8,9,10,12
5	Analyse the use of hydraulic and pneumatic drives in agricultural systems	Analyse	2	1,2,4,6,8,10,11,12

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 4 – Quality Education	Ancient treatises like <i>Samarangana Sutradhara</i> and <i>Yantra Sarvasva</i> documented hydraulic and pneumatic devices for education in mechanical systems.
SDG 7 – Affordable & Clean Energy	Traditional Indian water-lifting devices (Persian wheel, <i>shaduf</i> , step-wells) used fluid principles efficiently with renewable energy.
SDG 8 – Decent Work & Economic Growth	Indigenous farming tools reduced labor intensity and supported sustainable livelihoods.
SDG 9 – Industry, Innovation & Infrastructure	Ancient hydraulic innovations (irrigation canals, reservoirs, tank systems in South India) were engineering marvels supporting agriculture.
SDG 12 – Responsible Consumption & Production	IKS emphasizes <i>aparigraha</i> (minimalism) and efficient use of natural resources in agriculture and engineering.
SDG 13 – Climate Action	Ancient sustainable hydraulic systems (like <i>Phad irrigation</i> in Maharashtra) were designed with low environmental impact.
SDG 15 – Life on Land	<i>Vriksha Ayurveda</i> and <i>Bhumi Sukta</i> emphasized conservation of land, soil fertility, and sustainable farming.

TEXT BOOKS:

1. Liljedahl, B. J. Turanquist, P. K., Smith W. D. and Hoki Vaketo. Tractor and Their Power Units. AG publication, Fourth Edition, New York, 2009.
2. Michael, J. P. and John, G. A. Power Hydraulics. Prenlice Hall, NewYork, 2011

REFERENCE BOOKS:

1. Hydraulics, Fundamentals of Service. John Deere Service Publications, 2001. John Deere Road, Moline, 61265.

SKILLS:

- Testing of different hydraulic pumps
- Develop a suitable hydraulic system to lift the weights
- Estimate the power calculations

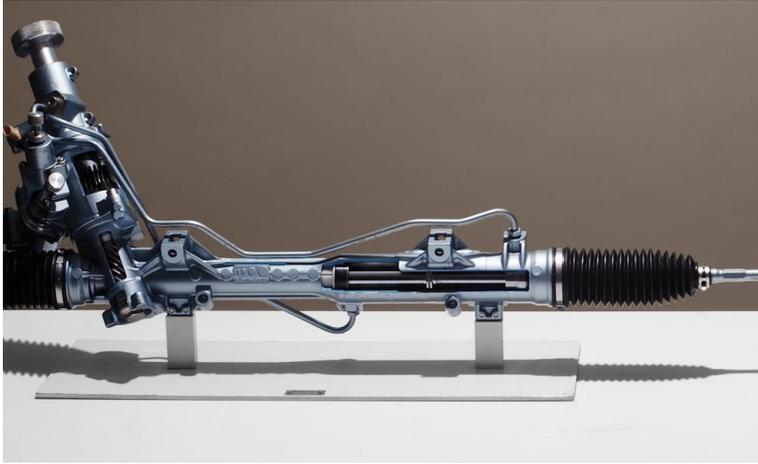


Image source link: <https://static.pakwheels.com/2016/10/hydraulic-power-steering-system.jpg>

Image file name: Power Hydraulics

22FMB805 - LAND GRADING AND EARTH MOVING MACHINERY

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE: Fundamental knowledge about criteria and methods followed for land levelling and basic knowledge about various earth moving equipments.

COURSE DESCRIPTION AND OBJECTIVES:

Students will be able to study the land levelling: Criteria and methods; Plane, profile & plan inspection; Earth work calculations; types, construction, capacity and working of the machines like Bulldozer Scraper; Grader; Shovel; Dragline, clamshell, trenching machine & compactors, Drilling and drilling tools; blasting and types of explosive & stemming; Transportation and handling of explosive; Application of CPM; Safety engineering for construction.

MODULE-1

12L+0T+12P=24 Hours

UNIT-1: LAND LEVELLING

criteria for land levelling, levelling layout of field for irrigation and drainage systems, survey and stacking, land levelling methods, contour bench levelling, construction of contour benches, earthwork quantities computation.

UNIT-2: EARTH WORK

Types, construction, capacity and working of the following machines: bulldozer, scraper, grader, small implements for levelling and grading

PRACTICES:

1. Land levelling by various methods.
2. Preparation of contour map for land levelling.
3. Study and operation of bulldozer.
4. Study and operation of the Power shovel.

5. Study the components of Dragline.

MODULE-2

18L+0T+18P=34 Hours

UNIT 1: DRILLING AND BLASTING

Air operated drilling tools: jack hammer, drifter, wagon drill. Selection of drilling equipment, types of explosive and stemming, transportation and handling of explosive; blasting caps and storage.

UNIT 2: EARTH WORK:

Excavation equipment, excavator loaders, shovel, dragline, clamshell, trenching machine & compactors. earth work calculations.

UNIT 2: MACHINE JOB

Job planning and management; Critical path management (CPM), Application and advantages of CPM, Program evaluation review technique (PERT), procedure of PERT, Safety engineering for construction

PRACTICES:

1. Practice of drilling a hole with a pneumatic drill
2. Practice of putting explosive in the hole.
3. Blasting practice in hard soils.
4. Blasting practice in hard soils with the help of explosives.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Application of different methods for land levelling	Apply	1	1,3,5,6,7,8,9,10
2	Analysis of working different earth moving machines	Analyse	1	1,2,4,6,8,10,11
3	Application and transportation of	Apply	2	1,3,5,6,7,8,9,10,11

	explosive material			
4	Analysis of Job planning and management	Analyse	2	1,2,4,5,6,8,10,11
5	Application of CPM in earth moving	Apply	2	1,3,5,6,7,8,10,11,12

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Ancient <i>Krishi-Parashara</i> and <i>Vriksha Ayurveda</i> emphasized proper field layout and water management for higher yields.
SDG 6 – Clean Water & Sanitation	Traditional water management practices like <i>Ahar-Pyne</i> (Bihar) and <i>Johads</i> (Rajasthan) optimized field water use.
SDG 7 – Affordable & Clean Energy	Indigenous low-energy soil and water conservation practices relied on manpower, animals, and renewable energy.
SDG 8 – Decent Work & Economic Growth	Local community-driven land development practices historically provided sustainable livelihoods.
SDG 9 – Industry, Innovation & Infrastructure	Ancient Indian civil engineering marvels (like Kallanai Dam, Grand Anicut – Tamil Nadu) show innovation in earthwork and hydraulics.
SDG 11 – Sustainable Cities & Communities	IKS reflects eco-friendly planning in stepwells (<i>baolis</i>), fortifications, and irrigation systems with community management.
SDG 12 – Responsible Consumption & Production	Traditional practices emphasized balance (<i>samyama</i>) and avoiding excess exploitation of land and materials.
SDG 13 – Climate Action	Ancient contour bunding and terracing methods in Himalayan & tribal regions were climate-resilient practices.
SDG 15 – Life on Land	Ancient land-use practices integrated forests, grazing, and agriculture, maintaining biodiversity.

TEXT BOOKS:

1. Michael, A. M. Irrigation: Theory and Practice. Vikas Publishing House Pvt.Ltd., New Delhi,2007.
2. Nichols, H. L. Moving the Earth, Second Edition, Golotia Publishing house, New Delhi-1, 1992.
3. Peurifoy, R. L. Construction, Planning Equipment and Methods, Third Edition, McGrew Hill International Book Co., 1999.

SKILLS:

- Estimate the capacity and work output of bulldozer
- Able to select the suitable drilling machine for specific work
- Proper handling of blasting materials



Image source link: <https://c8.alamy.com/comp/2GG2JY1/bulldozer-excavator-and-soil-compactor-on-road-work-earth-moving-heavy-equipment-and-construction-machinery-during-land-clearing-grading-pool-exca-2GG2JY1.jpg>

Image file name: Land Grading and Earth Moving Machinery

22FMB806 - HORTICULTURE AND FORESTRY EQUIPMENT

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE: Fundamental knowledge about farm mechanization and crop protection equipment

COURSE DESCRIPTION AND OBJECTIVES:

To introduce the students with different types of mechanical aids to be used for plantation crops from planting to harvesting and to transport the forest products. Also, students will study the cost estimation of different horticultural operations using various equipment and different management techniques to minimize the cost of operation.

MODULE-1

UNIT-1

12L+0T+12P=24 Hours

Mechanization for crops plantation, forestry operations, forestry machines and equipment. Machinery for land preparation and forest establishment. The operation and application of forest machinery.

UNIT-2

Machines for posthole digging, seeding, planting, plant protection, circular saw, shearing blades, slasher, winches, beams, ripper, bunches, tree felling. Forest cleaning and reclamation, logging, stump blasting. Fire control, fire line and their maintenance.

PRACTICES:

1. Study of different hand tools for forestry.
2. Study of different equipment for forestry.
3. Identification of operations in forestry for which new tools need to be designed and developed.
4. Field testing of different equipment used for horticultu

MODULE-2

18L+0T+18P=34 Hours

UNIT-1

Fundamentals of horticultural operations-land preparation, sowing, planting, transplanting, plant propagation and harvesting. Fundamentals of tools and equipment used for land preparation, nursery bed preparation, bed making/digging, sowing of seeds of fruits, vegetables and flowers, raising of nursery

UNIT-2

Planting/transplanting of seedling, plant propagation-pruning, budding, grafting, cutting etc. Plant protection and harvesting equipment.

UNIT-3

Development of resources, ditching and dewatering of ponds. Use of dozers, wheel loaders, motor graders, scrapers, knock down beams and ripper, forest transport machinery. Cost estimation of forestry operations, management techniques to minimize cost of operation.

PRACTICES:

1. Estimation of field capacity for land preparation
2. Study of different equipment for horticulture and estimate the field capacity
3. Identification of operations in horticulture for which new tools need to be designed and developed.
4. Estimation of cost of forestry equipment and suggestion to minimize the operating cost.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1.	Educate about importance of trees in agriculture, forest regeneration, forest	Understanding	1	1,2,7,11

	mensuration, agro-forest			
2.	Analyse various factors affecting standing trees in forest and plantations, forest management, forest resources and produce	Analyse	1	2,4,5,6,7
3.	Develop and understanding the methods used in forest regeneration, land recreation, nursery and forest management, silviculture practices	Create	1	1,3,4,5,7,11,12
4.	Develop the skills in nursery preparation of forest trees, trending operations, forest mensuration, selection of trees in agro-forestry	Create	2	1,3,4,5,7,12
5.	Develop the ability to measure plant and tree growth, volume of felled and standing trees, ages of trees, natural and artificial regeneration, basal cover of forests.	Create	2	1,2,3,4,5,8,12

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Ancient texts (<i>Vriksha Ayurveda</i> , <i>Krishi-Parashara</i>) describe scientific nursery raising, grafting, and propagation for food security.
SDG 6 – Clean Water & Sanitation	Traditional water harvesting structures (<i>Johads</i> , <i>Ahar-Pyne</i> , <i>stepwells</i>) integrated forestry and horticulture.
SDG 8 – Decent Work & Economic Growth	Indigenous agroforestry practices provided sustainable livelihoods (e.g., <i>Taungya system</i> in tribal regions).
SDG 9 – Industry, Innovation & Infrastructure	Traditional wooden ploughs, grafting knives, and irrigation wheels were early innovations adapted to local needs.
SDG 11 – Sustainable Cities & Communities	Ancient Indian city planning (e.g., Mohenjo-Daro) included green belts and planned tree planting.
SDG 12 – Responsible Consumption & Production	IKS emphasizes <i>Aparigraha</i> (minimal use of resources) and balanced use of land and forests.
SDG 13 – Climate Action	Traditional afforestation drives (e.g., <i>Van Mahotsav</i> , sacred groves) preserved forests and balanced ecosystems.

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 15 – Life on Land	<i>Sacred groves</i> (Devrai in Maharashtra, Saranas in Jharkhand) conserved biodiversity through cultural protection.

TEXTBOOKS:

1. Hawker, M. F. J. “Horticultural Machinery”, 2011.
2. Robertson, J. “Mechanizing Vegetable Production”. Farming Press, 2007
3. Lovergrove, H. T. “Crop Production Equipment”. Hutchin son Educational Ltd., London, 1999.
4. Huggard E.R. and Owen T.H. “Forest Machinery”, Adam & Charles Black Publishers Ltd, London, 1 Dec 1959.

REFERENCE BOOKS:

Hopfen, H. J. Small Farm Implements. F A O Agricultural Development Paper No.32, 1994

SKILLS:

1. Design of tools and equipment for forestry and horticulture
2. Field testing of designed tools and equipment used for forestry and horticulture



Image source link: <https://2.imimg.com/data2/TP/HM/MY-397646/img-8-220x220.jpg>

Image file name: Horticulture and Forestry Equipment

22FMB807 - CONTROLLED ENVIRONMENT AGRICULTURE

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE:

Basic knowledge of concepts and principles of controlled environment agriculture as well as basic skills, techniques and technologies of controlled environment agriculture.

COURSE DESCRIPTION AND OBJECTIVES:

To help students in knowing the growing of various crops in different regions controlling the various environmental factors such as temperature, humidity, irrigation, wind speed etc. and increasing the productivity. It will help the student in detail design of greenhouses by considering various factors. It is also useful for studying the various growth yield parameters in greenhouse and appropriate resource (natural) management in growing the crops.

MODULE-1

12L+0T+12P=24 Hours

UNIT-1

Introduction of controlled environment agriculture (CEA) as an agricultural alternative, micro climatic factors affecting on crop growth, methods for controlling the micro climatic factors.

UNIT-2

Greenhouse: Concept and historical background of green house, Classification of greenhouses based on shape, utility, covering material, cost of construction.

PRACTICES:

1. Recording of micro climatic factors inside green house
2. Comparative study of temperature and relative humidity of green house with covering materials.
3. Design of greenhouse to cover 20 m² area.
4. Calculation of size of exhaust fans and suitable pad.

MODULE-2

18L+0T+18P=34 Hours

UNIT-1

Functions and features of green house, scope and development of greenhouse technology, location, planning and various components of greenhouse, criteria for design and construction of greenhouse, design load calculations, construction material, methods of construction, greenhouse covering

UNIT-2

Steady state analysis of greenhouse, Heating, cooling, shedding and ventilation of greenhouse, Carbon dioxide generation and monitoring and lighting systems, watering, fertilization, root substrate and pasteurization, Soil-Water-Plant relationships

UNIT-3

Portable instruments to control the greenhouse environment, Computerized environmental control of greenhouses, disease control and integrated pest management in greenhouse, nutrient management, cost analysis of greenhouse production.

PRACTICES:

1. Estimation of material requirement for construction of low cost green house
2. Calculation of requirement of heat of a green house in summer season.
3. Differentiate the temperature and relative humidity between inside and outside of greenhouse
4. Estimate the drying efficiency of green greenhouse for agricultural produce

COURSEOUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1.	Investigate regarding energy efficient cooling and ventilation technologies	4	1	1,2,4,6,8,10,11
2.	Investigate regarding properly adapted materials for high temperatures and strong solar radiation	4	1	1,2,4,5,6,8,10,11
3.	Sustainable and efficient water use methods	3	2	1,2,4,5,6

4.	Application of Automation principles inside the greenhouse	3	2	1,2,4,5,8,10
5.	Analyse the Accessibility of technologies regards greenhouses	3	2	1,2,5,6,8,10

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Ancient practices like <i>Vriksha Ayurveda</i> described controlled conditions (shade nets, water channels) to improve yields.
SDG 3 – Good Health & Well-being	Traditional use of neem-based bio-pesticides and cow-based organic formulations (<i>Panchagavya</i>) ensured healthy produce.
SDG 6 – Clean Water & Sanitation	Indigenous <i>Ahar-Pyne, Kund</i> , and stepwell irrigation managed water efficiently for crops.
SDG 7 – Affordable & Clean Energy	Ancient sun-oriented architecture (e.g., <i>Vastu Shastra</i> principles) optimized natural light and ventilation.
SDG 9 – Industry, Innovation & Infrastructure	IKS innovations like grain storage silos, zero-energy cool chambers, and bamboo/poly-structures for crop storage inspire low-cost solutions.
SDG 12 – Responsible Consumption & Production	IKS promotes <i>Arthashastra</i> principles of resource optimization and eco-friendly material use (mud, bamboo, cow dung).
SDG 13 – Climate Action	Ancient <i>sacred groves</i> and <i>agroforestry</i> practices buffered local climate and preserved micro-climates.
SDG 15 – Life on Land	Traditional mixed-cropping and polyculture systems enhanced soil fertility and protected biodiversity.

TEXT BOOKS:

1. Salaokhe V. M. And Sharma, A. K. Greenhouse: Technology and Applications, Agrotech Publishing Academy, Udaipur 2006.

REFERENCE BOOKS:

1. Nelson, Paul V. Greenhouse: Operation and Management, Fifth Edition, Prentice Hall, Upper Saddle River, New Jersey, USA 2008.
2. Aldrich, R. A. And Bartok Jr. J. W. Greenhouse Engineering. Natural Resource, Agriculture and Engineering Service, Cooperative extension, 152 Riley-Robb Hall, Ithaca, NY14853-570, 2004.

SKILLS:

1. Design and construction of Greenhouse
2. Application of principles of Automation inside Greenhouse

**Image source link:**

<https://th.bing.com/th/id/OIP.XcIr9Nwjlbs6ZMdJgyeOLAHaE8?rs=1&pid=ImgDetMain>

Image file name: Controlled Environment Agriculture

22FMB808 - PRODUCT MANUFACTURING TECHNOLOGY

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE:

Basic knowledge of workshop technology and tool usage based on the materials

COURSE DESCRIPTION AND OBJECTIVES:

To acquire knowledge regarding construction of material and their characteristics, structure and properties of material, equilibrium diagram, time temperature transformation curves, heat treatment, types like metal, non-metal, alloy, non-alloy, measurement and quantity assurance, inspection and testing, casting process, forming process, material removal process, joining process, numeric control and process and techniques related to manufacturing.

MODULE-1

12L+0T+12P=24Hours

UNIT-1

Construction of material and their characteristics, structure of material, properties of material, equilibrium diagram, time temperature transformation curves, heat treatment, ferrous metals and alloys, non-ferrous metals and alloys, non-metallic material; plastic, elastomers, ceramics and composites, material selection, surface treatment and finishing. Measurement and quality assurance: Measurement and inspection, non-destructive inspection and testing, process capability and quality control, tolerance limits and clearances.

UNIT-2

PRACTICES:

1. Study of physical and mechanical properties of material tensile test, hardness, impact, material fatigue and endurance limit.
2. Study of metallographic structures of metals, determination of carbon and sulphur content, carburizing and hardening of plain and medium carbon steel by heating and annealing.

3. Study and use of measuring and inspection tools, study of limits, tolerances and geometric dimensioning.
4. Study and use of optical comparator, vision system measurement, co-ordinate measuring machine, surface roughness measurement, non-destructive inspection and testing and statistical process control
5. Study of physical and mechanical properties of material tensile test, hardness, impact, material fatigue and endurance limit.
6. Study of metallographic structures of metals, determination of carbon and sulphur content, carburizing and hardening of plain and medium carbon steel by heating and annealing.

MODULE-2

18L+0T+18P=36Hours

UNIT 1: CASTING AND FORMING PROCESS

Casting Process: Fundamentals of casting, patterns and sand moulds, continuous casting, shell moulding, lost wax or investment casting, plaster moulds, centrifugal casting, permanent mould casting, die-casting, electro-forming, the Shaw process and powder metallurgy.

Forming processes: Fundamentals of metal forming mechanism of hot and cold working, hot rolling of metals, forging processes, extrusion, cold rolling, cold forging, cold drawing, forming of plastic ceramic and composites, dies, shearing and blanking, and dies: bending and drawing.

UNIT-2

Material removal processes: Machining process, cutting tools for machining, turning and boring and related processes, drilling and related hole making processes, milling, broaching-sawing-filing, abrasive machining processes, work holding devices, machining centers, thread, manufacture, gear manufacturing and non-traditional machining processes (FCM, EDH, LBM, AJM, Wire EDM).

Joining processes: Gas flame processes: Cutting, welding and straightening, Arc processes, welding and cutting, resistance welding, brazing and soldering, adhesive, bonding and mechanical fasteners, manufacturing concerns in welding and joining.

UNIT-3

Numeric control: Command system, codes, programme, cutter position X and Y

incremental movements, linear contouring, Z movement and commands. Processes and Techniques related to manufacturing: Manufacturing system and automation, production systems and integrated manufacturing production system.

PRACTICES:

1. Study of pattern and sand moulding techniques, preparation of small moulds and carry out sand casting, study of different casting processes.
2. Practice on different machines like lathe, drill press, milling machine, slotting machine, shaper planers and grinders.
3. Study of non-traditional machining processes.
4. Study the tool geometry and their angles for different chip machining processes.
5. Study and practice on gas, arc, resistance, Mig and Tig welding, soldering, brazing and braze welding processes.
6. Study of surface finishing methods, cleaning, coaling and paint application.
Carryout the practice on powder coating and painting by different methods.

COURSEOUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1.	Select appropriate Manufacturing processing to manufacture any component	2	1	2,3,5,7,8,11
2.	Interpret foundry practices like pattern making, mould making, core making and inspection of defects	3	1	1,2,4,6,8,10,11
3.	Differentiate various metal forming process such as hot and cold working, rolling, forging and drawing processes.	3	2	1,3,5,6,7,8,9,10
4.	Develop simplified manufacturing processes with the aim of reduction of cost and manpower	6	2	1,3,4,6,8,10,11,12
5.	Implement the knowledge of gained subject in industry	6	2	1,3,4,6,8,9,10,11,12

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 4 – Quality Education	Ancient <i>Shilpa Shastra</i> and <i>Vishwakarma traditions</i> provided knowledge on metalwork, sculpture, and precision tools for education and practice.
SDG 8 – Decent Work & Economic Growth	Traditional Indian guilds (<i>Shrenis</i>) organized artisans and craftsmen, promoting fair wages and quality workmanship.
SDG 9 – Industry, Innovation & Infrastructure	Historical innovations like <i>Wootz steel</i> and <i>Bidri metal crafts</i> show India's legacy in advanced metallurgy and sustainable materials.
SDG 12 – Responsible Consumption & Production	IKS practices like reuse of metals, natural finishing techniques, and sustainable alloy compositions reduced environmental burden.
SDG 13 – Climate Action	Indigenous knowledge of low-energy furnaces (charcoal-based iron smelting) reflects sustainable material processing.
SDG 15 – Life on Land	Use of natural dyes, plant-based adhesives, and clay moulds in traditional manufacturing ensured harmony with ecosystems.

TEXT BOOKS:

1. Fundamentals of Tool Design. American Society of Tool and Manufacturer Engineers. Gupta, R. B. Production Technology, 2004
2. Jain, R. K. Production Technology: A Text book for Engineering Students. Khanna Publishers, New Delhi 1994.

REFERENCE BOOKS:

1. Myron; Begeman, L. and Amstead, B. H. Manufacturing Processes, 2015
2. Polukin, P. Gringerg, B. K antenik, S. Zhadan, V. And Vasilye, D .Metal Process Engineering, MIR Publishes. Moscow, 2008
3. Chapman, (Part III). Working Technology, 2008

SKILLS:

- Design and development of simple tolling for shearing, bending and deep drawing and use the main workshop
- Developing a programme for CNC machines (turning and milling) and practice on operation of turning and milling centers
- Study and design of different types of joints for welding. Welding of different

materials ferrous, cast iron, non-ferrous and stainless steel.

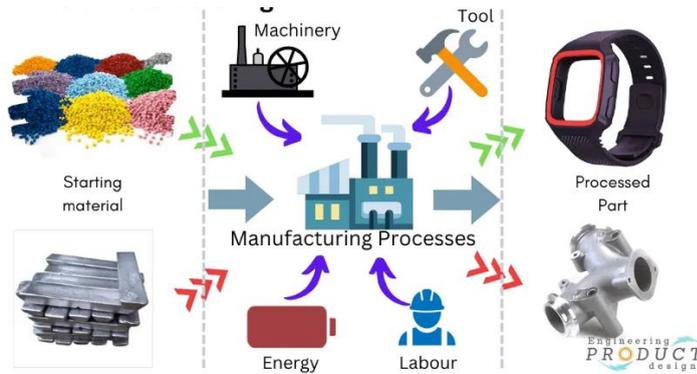


Image source link:

<https://www.google.com/url?sa=i&url=https%3A%2F%2Fengineeringproductdesign.com%2Fknowledge-base%2Fmanufacturing-processes%2F&psig=AOvVaw2aBtis4TGMdbwldCpWuNTa&ust=1741483590670000&source=images&cd=vfe&opi=89978449&ved=0CBQQjRxqFwoTCJDnjJCq-YsDFQAAAAAdAAAAABAE>

Image file name: Product Manufacturing Technology

22FMB809 - FARM MACHINERY DYNAMICS, NOISE AND VIBRATION

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE:

Basic knowledge about working tools of primary and secondary tillage equipment's

COURSE DESCRIPTION AND OBJECTIVES:

To acquaint with principles of soil working tools: shares, discs and shovels and blades, metering of seeds and granular fertilizers with various mechanisms, electrostatic spraying and dusting, spray distribution patterns, kinematics of reapers, parameters affecting performance of threshers, noise and vibration theory – definitions, units and parameters of measurements and their importance, types of vibrations and balancing of single rotating weight in same plane, balancing of reciprocating parts of engine.

MODULE-1

UNIT-1

8L+0T+8P=16 Hours

Principles of soil working tools: shares, discs and shovels and blades, vibrating tillage tools and impact of vibration in saving of energy.

UNIT-2

8L+0T+8P=16 Hours

Metering of seeds and granular fertilizers with various mechanisms, effect of various parameters on distribution of seed and fertilizer in seed-cum-fertilizer drills and planters. Electrostatic spraying and dusting, spray distribution patterns, kinematics of reapers, parameters affecting performance of threshers.

PRACTICES:

1. Testing of seed metering mechanism of seed drill
2. Calibration of sprayers and dusters and adjustments
3. Testing of granular fertilizer material broad caster
4. Performance evaluation of power thresher

MODULE-2

UNIT-1

8L+0T+8P=16Hours

Noise and vibration theory – definitions, units and parameters of measurements and

their importance. Types of vibrations–free and forced vibrations.

UNIT-2

8L+0T+8P=16 Hours

Balancing of single rotating weight in same plane, balancing of reciprocating parts of engine.

PRACTICES:

1. Study of vibration measurement and analysis equipment.
2. Study of different vibration measurement and evaluation.
3. Measurements of forced vibrations

SKILLS:

- Measurement and analysis of vibration on different components of thresher and tractors
- Evaluation of damping factor for a given material
- Application of principles of modulus of elasticity for a given material.

COURSEOUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1.	Understand the kinematics and dynamics of various farm power and machinery systems	2	1	2,3,5,7,8,11
2.	Apply the principles of kinematics and dynamics for the design and development of farm machines	3	1	1,2,4,6,8,10,11
3.	Analysing and understanding noise and vibration theory and apply in design of farm machines	4	2	1,2,4,6,8,10,11
4.	Understanding the concept of balancing the reciprocating parts of engine	2	2	2,3,5,7,8,11
5.	Apply the concept of balancing the single rotating weight in design of farm machines	3	2	1,2,4,6,8,10,11,12

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Traditional seed drills (<i>Naru yantra</i> , <i>Khurpi</i> methods) ensured uniform sowing and minimal wastage in ancient India.
SDG 7 – Affordable & Clean Energy	Indigenous ploughs and tools optimized draft power from bullocks, reducing energy needs naturally.
SDG 8 – Decent Work & Economic Growth	<i>Krishi Shastras</i> guided farmers on efficient implements for different soils, ensuring better labor efficiency.
SDG 9 – Industry, Innovation & Infrastructure	Ancient engineering texts like <i>Samarangana Sutradhara</i> documented machine design principles, inspiring indigenous innovations.
SDG 12 – Responsible Consumption & Production	Traditional farming emphasized exact seed placement, crop rotation, and organic manuring for sustainable production.
SDG 13 – Climate Action	Indigenous minimal tillage practices like <i>zero till</i> with bullock-drawn ploughs conserved soil and reduced carbon impact.
SDG 15 – Life on Land	Ancient contour ploughing and intercropping preserved soil health and biodiversity in Indian farming systems.

TEXT BOOKS:

1. Kepner, R. A. Bainer, R, and Barger E. L. Principles of Farm Machinery, A VI Pub.,
2. Grover G K. Mechanical Vibrations. New Chand and Broths. Roorkee, 2007
3. Meirovitch L. Elements of vibration analysis. II Edition. McgrawHill, 2007

REFERENCE BOOKS:

1. Bosoi, E. S. Vermaev, O V, Smirnov, I-I and Sultan Shakh, E. G. Theory, Construction and Calculation of Agricultural Machines, A. A. Balkema Poub. Rotterdam, 2009
2. Kanafozski, O and T. Karwowski Agricultural Machines: Theory and Construction. Vol.I & II, Translated and published by US Deptt. Of Agriculture, 2008

Image source link:

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22FMB810 - ENGINEERING PROPERTIES OF FOOD MATERIALS

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE:

Fundamental knowledge of all types of fruits and vegetables and basics of engineering fundamentals

COURSE DESCRIPTION AND OBJECTIVES:

To learn about different techniques of measurement of engineering properties and their importance in the design of processing equipment's, determine physical, aerodynamic and thermal properties of food; identify the causes of mechanical damage.

MODULE-1

12L+0T+12P=24Hours

UNIT-1

Importance and brief description of mechanical; thermal; electrical and optical properties; Physical characteristics - shape; size; charted standards; roundness; sphericity; axial dimensions and projected area.; volume and density - platform scale; specific gravity balance; pycnometer method; porosity and surface areas – leaf and stalk surface area; fruit surface area; egg surface area and specific surface in porous pack.

UNIT-2

Basic concepts of rheology, physical states of material; rheological models and Rheological equations, Maxwell, Kelvin, 4-element model, generalized Maxwell and Generalized Kelvin models; viscoelastic characterization of materials - stress; strain behavior; creep, stress relaxation and dynamic tests.

PRACTICES:

1. Determination of physical properties like, length, breadth, thickness, surface area of biological materials.
2. Determination of bulk density, porosity and true density of a biological materials
3. Determination of volume of any irregular surface biological materials
4. Determination of terminal velocity of biological materials.

MODULE-2

18L+0T+18P=36 Hours

UNIT-1

Textural and structural mechanics of food materials, effect of age, water content and temperature on texture of foods, introduction to rheological characteristics of agricultural, dairy and food products.

UNIT-2

Mechanical damage – economic importance; causes; detection and evaluation of mechanical damage. Impact damage and its mechanics; vibration damage and stress cracking; Maximum allowable load for agricultural products.

UNIT-3

Aero- and hydro-dynamic characteristics - Drag coefficient; terminal velocity; separation of foreign materials; pneumatic transport and handling; effect of moisture on frictional properties, angle of internal friction; angle of repose, application of frictional properties in design of handling and processing machines such as screw conveyors and oscillating conveyors.

PRACTICES:

1. Determination of coefficient of friction and angle of repose.
2. Determination of colour for various food grains, fruits, vegetables, spices and processed foods.
3. Determination of thermal properties like specific heat of food materials.
4. Determination of rheological properties like firmness and hardness of grain and fruits.

COURSEOUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Estimate the porosity of biological materials by using pycnometer	5	1	1,2,4,5,6,8,9,10,11
2	Application of Maxwell and Kelvin models for biological materials for study of different properties	3	1	1,2,4,6,8,10,11
3	Detect and evaluate the mechanical damage for agricultural products	5	2	1,2,4,5,6,8,9,10,11
4	Application of pneumatic transportation principles for transportation of sensitive biological materials	3	2	1,2,4,6,8,10,11
5	Design of screw conveyors for conveying of fruits and vegetable	6	2	1,3,4,6,8,10,11,12

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Ancient grain storage structures (<i>Kuthar, Golaghar, mud silos</i>) used natural aeration and porosity principles to protect grains.
SDG 3 – Good Health & Well-being	Ayurveda emphasized food texture (<i>guna</i>) and properties (<i>rasa, virya</i>) for human well-being.
SDG 7 – Affordable & Clean Energy	Indigenous tools like <i>chakki</i> (hand mill) and water-powered mills applied natural energy-efficient principles.
SDG 8 – Decent Work & Economic Growth	Traditional cooperative grain processing (village-level <i>chakki</i> and oil expellers) supported rural economies.
SDG 9 – Industry, Innovation & Infrastructure	Ancient Indian metallurgy and material science (iron pillars, alloys) reflect deep indigenous knowledge of material properties.
SDG 12 – Responsible Consumption & Production	Traditional threshing, winnowing, and hand-processing methods minimized breakage and waste.
SDG 13 – Climate Action	Indigenous low-energy storage and handling practices (mud pots, bamboo bins) reduced environmental impact.
SDG 15 – Life on Land	Ancient sustainable harvesting and storage practices (like underground pits for tubers) protected food diversity.

REFERENCE BOOKS:

1. Bourne, M. 2002. Food Texture and Viscosity–Concept and Measurement. Academic Press.
2. Mohesenin N N. 2000. Physical Properties of Plant and Animal Materials. Gordon & Breach Science Publ.
3. Peleg M & Bagelay E B. 1983. Physical Properties of Foods. AVI Publ. Co.
4. Rao M A & Rizvi S S H. (Eds). Engineering Properties of Foods. Marcel Dekker.
5. Rao M A, Rizvi S S H & Datta A D K. 2005. Engineering Properties of Food. Francis and Taylor, C R C press.
6. Sahin S & Sumnu S G. 2006. Physical Properties of Food. Springer.
7. Singhal O P & Samuel D V K. 2003. Engineering Properties of Biological Materials.

SKILLS:

- ⑩ Determination of colour of food materials
- ⑩ Determination of thermal and rheological properties of food materials
- ⑩ Determination of angle of repose for different floor materials

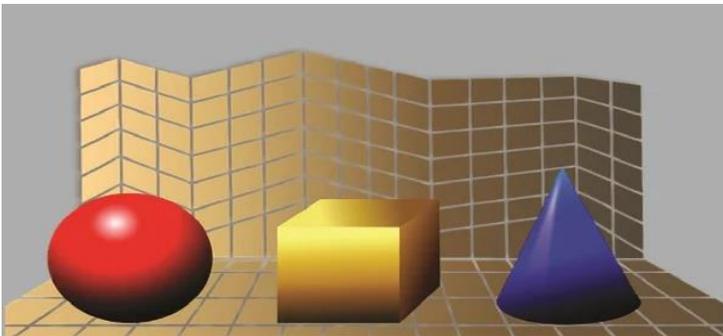


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Image file name: Engineering Properties of Food Materials

22FMB811 - GEO-INFORMATICS AND NANO-TECHNOLOGY FOR PRECISION FARMING

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE: Indian agriculture; Precision Agriculture, fertilizer recommendation.

COURSE DESCRIPTION AND OBJECTIVES:

To introduce the basic concepts of geo-informatics and nanotechnology, create awareness about various applications of geo-informatics and nanotechnology for precision agriculture, teach basic handling of various geo-informatics tools

MODULE-1

12L+0T+12P= 24 Hours

UNIT-1: PRECISION AGRICULTURE

Concepts and techniques, their issues and concerns for Indian agriculture;

Geo-informatics: Definition, concepts, tool and techniques, their use in precision agriculture, introduction to GIS software, data creation and editing.

UNIT-2: APPLICATION OF REMOTE SENSING

Crop discrimination and Yield monitoring, soil mapping; fertilizer recommendation using geospatial technologies; Spatial data and their management in GIS; Remote sensing concepts and application in agriculture; Image processing and interpretation

PRACTICES:

1. Application of GIS software to create spatial data regards agriculture.
2. Introduction to image processing software.
3. Introduction to Visual and digital interpretation of remote sensing images.
4. Generation of spectral profiles of different objects.

MODULE-2

18L+0T+18P=36 Hours

UNIT 1: GLOBAL POSITIONING SYSTEM (GPS)

Introduction, components and its functions. Introduction to crop simulation models and their uses for optimization of agricultural inputs; STCR approach for precision agriculture;

UNIT 2: NANOTECHNOLOGY

Definition, concepts and techniques, brief introduction about nano-scale effects, nano-particles, nano-pesticides, nano-fertilizers, nano-sensors

UNIT 3: USE OF NANOTECHNOLOGY

Use of nano- technology in seed, water, fertilizer and plant protection for scaling-up farm productivity.

PRACTICES:

1. Crop stress (biotic/abiotic) monitoring using geospatial technology.
2. Find out some locations of agricultural fields by using GPS.
3. Formulation, characterization and applications of nano-particles in agriculture.
4. Projects formulation and execution related to precision farming.
5. Creation of thematic layers of soil fertility based on GIS.
6. Multispectral remote sensing for soil mapping.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1.	Analyse of spatial and temporal variability of the input parameters using primary data at field level	Analyse	1	2,4,5,7
2.	To Analyse both economic and environmental issues that surround production agriculture today.	Analyse	2	1,2,4,5,6
3.	To create awareness about various applications of geo-informatics and nanotechnology for precision agriculture	Create	2	2,3,4,5
4	Introduction to crop Simulation Models and their uses for optimization of Agricultural Inputs	Create	2	3,4,5,8

5	scaling-up farm productivity by using nanotechnology	Create	2	1,2,3,4,5,7,8,9,12
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Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Ancient India practiced site-specific farming (<i>Bhoomi Pariksha</i> in texts like <i>Krishi-Parashara</i>), analyzing soil, water, and climate before cultivation.
SDG 3 – Good Health & Well-being	Traditional organic pest management (Neem extracts, cow urine, Panchagavya) focused on safe, natural crop protection.
SDG 6 – Clean Water & Sanitation	Ancient irrigation systems like <i>Ahar-Pyne</i> , <i>Johads</i> , and tank irrigation reflected sustainable water use.
SDG 7 – Affordable & Clean Energy	Traditional low-energy irrigation devices (<i>Persian wheel</i> , <i>Rahat</i> , <i>Sakia</i>) optimized renewable water lifting.
SDG 8 – Decent Work & Economic Growth	Village cooperative farming and <i>Kulkarni</i> records (land productivity registers) were traditional models of rural economic growth.
SDG 9 – Industry, Innovation & Infrastructure	Indigenous astronomical observations and <i>Jyotisha</i> were used historically to determine seasons and crop calendars.
SDG 12 – Responsible Consumption & Production	Traditional mixed cropping and crop rotation promoted natural soil fertility and efficient resource use.
SDG 13 – Climate Action	Ancient texts like <i>Brihat Samhita</i> documented monsoon prediction methods based on wind, clouds, and animal behavior.
SDG 15 – Life on Land	Traditional agroforestry systems (e.g., <i>Vrikshayurveda</i> practices) promoted balance between crops, trees, and soil health.

TEXT BOOKS:

1. Reddy S R. Geo-informatics and Nano-technology for Precision Farming, Kalyani Pub., 2017.
2. Upadhyay Tarun Kumar and Sharma Sushil Kumar. Textbook on Geo-informatics, Nano-technology and Precision Farming, ND Pub., 2020.

REFERENCE BOOKS:

1. Chandra A M. Geo-Informatics, New Age International, July 15, 2016

SKILLS:

- Application of geospatial technologies to find out the fertilizer recommendation
- Application of nanotechnology in seed, water, fertilizer, plant protection for scaling-up farm productivity.

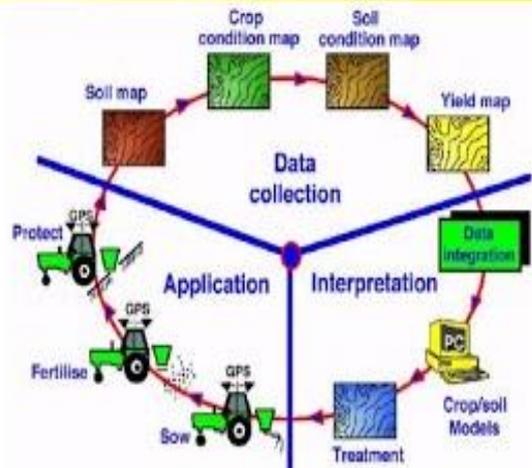
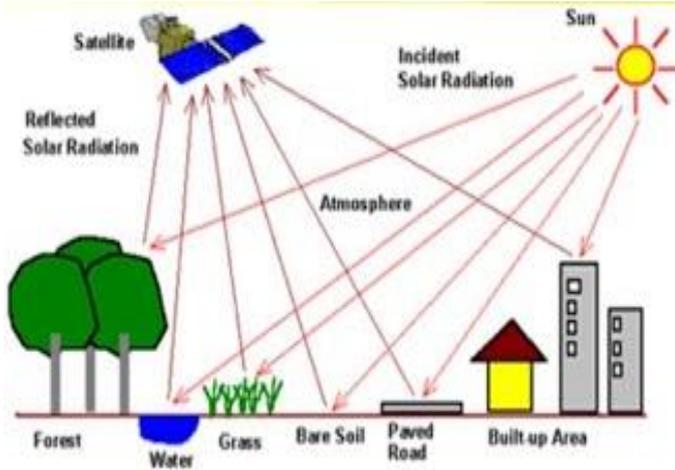


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Image file name: Geo-Informatics and Nano-Technology For Precision Farming

22FMB812 - DIMENSIONAL ANALYSIS AND SIMILITUDE

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE:

Units and Dimensions, Introduction of stress and strain, Fundamental of Fluid mechanics and Heat Transfer

COURSE DESCRIPTION AND OBJECTIVES:

This course will give the knowledge about the basic parameters to be considered in the design of the machineries also transformation of product, various possible for ces and it's extents on the model in working. It will help students the way of testing of model from similitude design. Also student will study the behavior of fluids to be used in the model, heat transfer and electromagnetic phenomenon in application of similitude.

MODULE-1

12L+0T+12P=24 Hours

UNIT-1: DIMENSIONAL ANALYSIS:

Need, scope, methods, advantages and limitation of dimensional analysis. The classification of physical quantities. Transformation of units of measurement.

UNIT-2

The principle of dimensional homogeneity, the structure of the typical equation on the basis of the dimensional analysis, complete sets of dimensionless products, Buckingham Pi theorem

PRACTICES:

1. Study of method of transformation of units of measurement.
2. Calculation of dimensionless homogeneity.
3. Calculation of dimensionless products.
4. Calculation of problems related to Pi-theorem and its application.

MODULE-2

UNIT 1

18L+0T+18P=36 Hours

Dimensionless parameter and its parameters, transformation of dimensionless products, similarity and model testing.

UNIT 2

Dimensional analysis applied to problem of stress and strain.

UNIT 3

Dimensional number of fluid mechanics, heat transfer and electromagnetic theory, similitude studies, types and applications, model analysis.

PRACTICES:

1. Method for finding out determinants.
2. Methods for transformation of dimensionless products.
3. Study of procedure for model testing.
4. Problem solving related to stress and strain, fluid mechanics, heat transfer and electromagnetic theory.

COURSEOUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1.	To Identify the forces that govern the physical processes and select the relevant dimensionless parameters to simplify the experimental setup using critical thinking skills.	Analyse	1	2,4,5,6
2.	To apply dimensional analysis to predict formulas which connect particular variables in given circumstance	Apply	1	1,5,6,7,8
3.	To design a model to investigate the relevant physical processes and mechanisms through experiments using engineering judgement.	Create	2	3,4,5,7,12
4.	To develop relationships for the parameter of interest by correlating the experimental data and dimensionless parameters.	Create	2	2,4,5,7,11

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 4 – Quality Education	Ancient Indian scholars (Āryabhaṭa, Bhāskara, Varāhamihira) used mathematical logic and proportionality principles to describe planetary motion, geometry, and physical processes.
SDG 7 – Affordable & Clean Energy	Traditional water-lifting devices (<i>Rahat, Shaduf</i>) and wind-driven systems were tested on scaled models before real applications.
SDG 9 – Industry, Innovation & Infrastructure	Ancient India applied scale models in architecture (<i>Shilpa Shastra</i>) and temple construction to ensure structural stability and symmetry.
SDG 11 – Sustainable Cities & Communities	Town-planning of <i>Mohenjo-Daro</i> and <i>Harappa</i> reflected proportion, geometry, and hydraulic modeling of drainage systems.
SDG 12 – Responsible Consumption & Production	Traditional <i>Vaastu Shastra</i> emphasized material efficiency and proportional use in construction and design.
SDG 13 – Climate Action	Ancient texts like <i>Brihat Samhita</i> recorded observations of rainfall, floods, and winds, applying proportional analysis to natural phenomena.

TEXT BOOKS:

1. Modi and Seth. Hydraulic and Fluid Mechanics, published by Standard Book House, New Delhi, 1991.
2. Longo G. Sandro. Principles and Applications of Dimensional Analysis and Similarity, Springer International Publishing AG 2021

REFERENCE BOOKS:

1. Langhaar, I. Henry I. Dimensional Analysis and Theory of Model. Published by John Wiley and Sons. Inc. London, 1951.
2. Jagdish Lal. Hydraulic and Fluid Mechanics, Published by Metropolitan Book Co. Delhi, 1983.

SKILLS:

- Transformation of units of measurement.
- Application knowledge Buckingham pi theorem

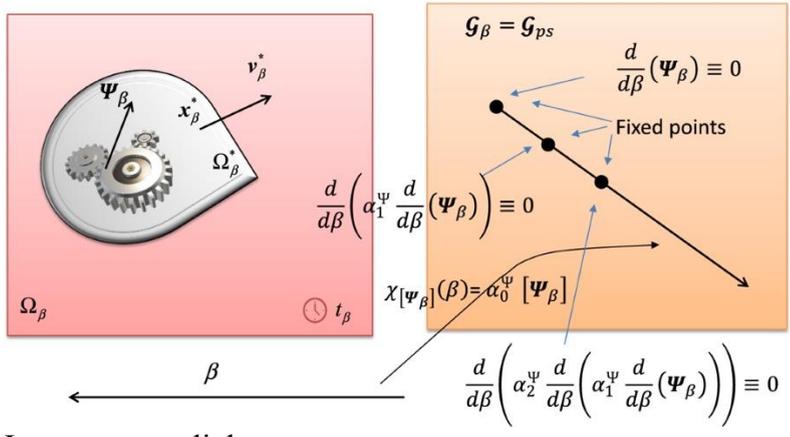


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Image file name: Dimensional Analysis and Similitude

22FMB813 – MACHINERY FOR HORTICULTURE AND PROTECTED AGRICULTURE

Hours per week:

L	T	P	C
2	-	2	3

PREREQUISITE KNOWLEDGE: Introduction to Horticulture or Agricultural Machinery

COURSE DESCRIPTION AND OBJECTIVES:

This course introduces students to the principles, design, and operation of machinery and equipment used in horticulture and protected agriculture. It covers various types of machinery and their applications in controlled environments like greenhouses and nurseries.

MODULE-1

12L+0T+12P=24 Hours

UNIT-1: INTRODUCTION TO MACHINERY IN HORTICULTURE

Definition and scope of machinery in horticulture, Historical perspective and technological advancements, Importance of mechanization in horticulture.

Types of Horticultural Machinery: Tractors and tractor attachments, Planting and transplanting machinery, Harvesting and post-harvest handling equipment, Irrigation and water management machinery.

UNIT-2: PROTECTED AGRICULTURE STRUCTURES

Introduction to protected agriculture (greenhouses, tunnels, etc.), Design and components of greenhouse structures, Environmental control systems in protected agriculture.

Machinery for Greenhouse Operations: Heating, cooling, and ventilation equipment, Automated climate control systems, Irrigation and fertigation systems in protected environments.

PRACTICES:

1. Basic tractor maintenance, including oil changes and filter replacement.
2. Calibration and adjustment of planting machinery for different crops.
3. Hands-on experience with soil sensors and weather stations.
4. Installation and operation of environmental control systems.

MODULE-2

18L+0T+18P= 34 Hours

UNIT 1

Precision Agriculture in Horticulture: Precision agriculture concepts and technologies, Sensor-based applications in horticulture, Data management and analysis for precision horticulture.

Machinery for Pest and Disease Management: Sprayers and dusters for pesticide application, Monitoring and control systems for pest and disease management.

UNIT 2: POST-HARVEST HANDLING AND PROCESSING MACHINERY

Sorting, grading, and packaging machinery, Cold storage and refrigeration systems.

Machinery Maintenance and Safety: Routine maintenance and troubleshooting, Safety protocols for machinery operation.

UNIT 3: Emerging Technologies in Horticultural Machinery

Automation and robotics in horticulture, Drones and remote sensing applications.

Sustainable Practices and Future Trends: Sustainable machinery and energy-efficient practices, Future trends and innovations in horticultural machinery.

PRACTICES:

1. Calibration of a pesticide sprayer.
2. Post-harvest handling of fruits and vegetables
3. Machinery maintenance and safety checks
4. Drone-based monitoring of crop health.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1.	Demonstrate safe operation of horticultural machinery, adhering to standard operating procedures and safety guidelines.	Apply	1	2,4,5,8
2.	Calibrate and adjust planting and irrigation machinery to achieve precise seed placement, spacing, and water distribution for different crops	Apply	1	1,2,5,6
3.	Develop a design proposal for a controlled environment in horticulture, considering structural elements, climate control, and energy efficiency.	Create	2	1,3,5,8,9
4.	Evaluate the impact of controlled environment management on crop growth and yield, using data to make adjustments for optimal conditions.	Evaluate	2	4,5,7,8
5.	Design innovative modifications to horticultural	Create	2	3,5,7,9,11

	machinery to enhance sustainability, energy efficiency, or crop-specific adaptability.			
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Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Ancient India developed fruit/vegetable preservation (e.g., drying, pickling, storage pits) and water-lifting devices (<i>shaduf, rahat</i>) to secure food supply.
SDG 3 – Good Health & Well-being	Traditional pest control (Neem extracts, Panchagavya, smoke fumigation) emphasized safe and eco-friendly practices.
SDG 4 – Quality Education	Ancient <i>Gurukula</i> and <i>Krishi-Parashar</i> texts emphasized experiential learning, observation, and hands-on agricultural education.
SDG 7 – Affordable & Clean Energy	Traditional use of solar heat traps, passive ventilation, and water-based cooling in <i>stepwells</i> and storage houses.
SDG 8 – Decent Work & Economic Growth	Indigenous community farming practices and cooperative irrigation systems ensured equitable work distribution.
SDG 9 – Industry, Innovation & Infrastructure	Ancient hydraulic engineering (e.g., <i>Kallanai dam, Harappan irrigation channels</i>) showed technological ingenuity in agriculture.
SDG 11 – Sustainable Cities & Communities	Ancient Indian <i>home gardens</i> and <i>sacred groves</i> provided community-based sustainable horticulture models.
SDG 12 – Responsible Consumption & Production	Traditional grain storage structures (<i>Kuthar, mud bins, bamboo silos</i>) minimized losses and ensured food quality.
SDG 13 – Climate Action	Traditional water management (tank irrigation, stepwells, rainwater harvesting) helped communities adapt to climate challenges.
SDG 15 – Life on Land	Ancient texts promoted mixed cropping, agroforestry, and organic inputs to maintain ecological balance.

TEXT BOOKS:

1. Bell Brian, Stewart Cousins (1997). Machinery for Horticulture. Old Pond Publishing Ltd; 2nd Revised edition.
2. Stafford John (2018). Precision Agriculture for Sustainability. Burleigh Dodds Science Publishing, London.
3. Mefferd Andrew (2017). The Greenhouse and Hoophouse Grower's Handbook: Organic Vegetable Production Using Protected Culture. Chelsea Green Publishing,
4. Hanan Joe J. (2017). Greenhouses: Advanced Technology for protected Horticulture.

CRC Press.

SKILLS:

- Horticulture Machinery Calibration and Adjustment
- Precision Agriculture Data Collection
- Sustainable Machinery Practices



Image Source Link : https://www.freepik.com/premium-vector/vector-set-agricultural-vehicles-farm-machines-tractors-harvesters-combines-illustration-flat-design-agriculture-business-concept-agriculture-machinery-agriculture-crop-harvest_4668781.html

Image file name: Machinery for Horticulture and Protected Agriculture

22FMB814 - MACHINERY FOR PRECISION AGRICULTURE

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE:

Fundamental knowledge of precision agriculture and different types of machinery used for particular operations.

COURSE DESCRIPTION AND OBJECTIVES:

This course introduces the students with precision farming technologies and different types of conservation agricultural machineries for natural resource management. It will give the different engineering fundamentals of conservation machineries, construction and operation of different machineries and their suitability for operations and different types of related computer programmes such as critical path methods (CPM).

MODULE-1

12L+0T+12P=24 Hours

UNIT-1: FUNDAMENTALS OF PRECISION FARMING

An introduction to precision farming, issues and conditions. Engineering fundamentals related to earth-moving machinery, swell and shrinkage, type of compacting equipment, land clearing equipment.

UNIT-2: EARTH MOVING MACHINERY

Power shovel: Construction and operation of power shovel, size selection of power shovel, factors affecting the output of a power shovel.

Dragline: Types of dragline, size, basic parts and operation of a dragline, output of adragline, estimation of output, effect of different factors on output, numerical problems.

Practices:

1. Design specification sheet of earth moving machinery
2. Design specification sheet of land clearing machinery
3. Study of power shovel and solve numerical problems
4. Study of drag line and solve numericals

MODULE-2

18L+0T+18P=34 Hours

UNIT 1: CLAM SHELL

Basic parts and operation of a clam shell, application, size and output of a clam shell.

UNIT 2: TRENCHING MACHINES

Types, construction and operation of wheel and ladder type trenching machines, selection of suitable equipment for excavating trenches and production rates of trenching machines.

UNIT 3: JOB PLANNING AND MANAGEMENT

Project network analysis, definitions of terms used in critical path method (CPM), critical path scheduling, AOA diagram, computerized scheduling.

PRACTICES:

1. Study of clamshell.
2. Estimate of earth work of trenching machines
3. Estimate unit cost of operation of machinery
4. Problems related to land development using CPM machines used for natural resources management and precision farming.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Analysis of precision farming, issues and conditions.	Analyse	1	2,4,5,6
2	Analysis of engineering fundamentals related to earth-moving machinery, swell and shrinkage,	Analyse	1	2,4,5,6,7,9
3	Selection of suitable equipment for excavating Trenches and production rates of trenching machines	Apply	2	1,2,5,11
4	Application of critical path scheduling	Apply	2	1,2,5,6,8
5	Analysis of Job planning and management	Analyse	2	2,4,5,6,7,9,10

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 2 – Zero Hunger	Ancient practices like <i>bunding, terracing, and pond irrigation</i> maximized crop output per unit area.
SDG 7 – Affordable & Clean Energy	Traditional land preparation using animal-drawn implements minimized energy use.
SDG 8 – Decent Work & Economic Growth	Community-based labor-sharing systems (<i>Shramdaan, Goseva</i>) optimized manpower in land preparation.
SDG 9 – Industry, Innovation & Infrastructure	Historical water-lifting devices (<i>rahat, Persian wheel</i>) and terracing systems show innovation in land development.
SDG 11 – Sustainable Cities & Communities	Traditional land-use planning, including village ponds, bunds, and irrigation channels, ensured sustainable local resource management.
SDG 12 – Responsible Consumption & Production	Ancient farming practices emphasized resource-efficient land leveling and terracing to reduce soil erosion.
SDG 13 – Climate Action	Indigenous land management techniques like staggered cropping and contour farming mitigated climate impacts.
SDG 15 – Life on Land	Agroforestry and forest management practices conserved soil fertility and biodiversity while preparing land for cultivation.

TEXT BOOKS:

1. Purifoy R., Schexnayder C.J. and Shapira Aviad. Construction Planning, Equipment and Methods, 7th Edition, McGraw Hill Education, India, 22 May 2010.
2. De Amitosh. Latest Development of heavy earth moving machinery, Galgotia Publication pvt ltd, New delhi, 1 January 2015.

REFERENCE BOOKS:

1. Verma Mahesh. Construction equipment and its planning and application, 2nd Edition, Metropolitan Book Company, New Delhi, 1975.
2. Michael, A.M., Irrigation theory and practices, 2nd Edition, S. Chand, New Delhi, 1st January 2008

SKILLS:

- Operation of power shovel, size selection of power shovel
- Construction and operation of wheel and ladder type trenching machines
- Job planning and management



Image Source Link :

<https://www.google.com/url?sa=i&url=https%3A%2F%2Feos.com%2Fblog%2Fprecision-agriculture%2F&psig=AOvVaw2F1tIIQdgJVWfl7uiFrJHU&ust=1741479877043000&source=images&cd=vfe&opi=89978449&ved=0CBQQjRxqFwoTCMjd7p2c-YsDFQAAAAAdAAAAABAJ>

Image file name: Machinery for Precision Agriculture

22FMB815 - FOUNDATION SKILLS IN INTEGRATED PRODUCT DEVELOPMENT

Hours per week:

L	T	P	C
2	0	2	3

PREREQUISITE KNOWLEDGE: To excel in integrated product development, one should possess foundation skills in design and development, engineering and technology, project management and collaboration, business and marketing, and sustainability and social responsibility. This includes knowledge of design principles, engineering fundamentals, project management, market research, and sustainability principles. Additionally, proficiency in design tools, communication skills, and collaboration are essential.

COURSE DESCRIPTION AND OBJECTIVES:

To understand the global trends and development methodologies of various types of products and services, conceptualize, prototype and develop product management plan for a new product based on the type of the new product and development methodology integrating the hardware, software, controls, electronics and mechanical systems, understand requirement engineering and know how to collect, analyze and arrive at requirements for new product development and convert them in to design specification.

MODULE-1

12L+0T+12P=24 Hours

UNIT-1: FUNDAMENTALS OF PRODUCT DEVELOPMENT

Global Trends Analysis and Product decision: Social trends, technical trends economic trends, environmental trends, political/policy trends.

Introduction to Product Development Methodologies and Management: Overview of products and services, types of product development, overview of product development methodologies, product life cycle, product development planning and management.

UNIT-2: REQUIREMENTS AND SYSTEM DESIGN

Requirement Engineering: Types of requirements, requirement engineering traceability matrix and analysis, requirement management.

System Design & Modelling: Introduction to system modelling, system optimization, system specification, sub-system design, interface design

Practice:

1. Study of methodologies of product development
2. Create new product development documentation
3. Create interface design on product development life cycle.
4. Create system modelling on new product development in CAM Software

MODULE-2**18L+0T+18P=36 Hours****UNIT 1: DESIGN AND TESTING**

Conceptualization: Industrial design and user interface design, introduction to concept generation techniques.

UNIT 2: INTEGRATION OF ENGINEERING DISCIPLINES

Challenges in Integration of Engineering Disciplines: Concept, screening & evaluation.

UNIT 3: DETAILED COMPONENT DESIGNING

Component design and verification.

Mechanical, Electronics and Software Subsystems: High level design/low level design of S/W program, types of prototypes, S/W Testing-Hardware schematic, component design, layout and hardware testing.

Practice:

1. Case study: To perform various testing using the testing tool unit testing, integration testing for a sample code of the suggested system.
2. Create layout for designing Mechanical type sub-system for new product development
3. Create layout for designing Electronics type sub-system for new product development
4. Software testing

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Analyse and formulate a problem	Analyse + Evaluate	1	1,2,4,5,6,7,9
2	Solve specific problems independently or as part of a team	Evaluate	1	3,5,9,11
3	Mastering the methods and processes of design.	Create	2	3,4,5,12

Mapping of Sustainable Development Goals (SDGs) and Indian Knowledge System (IKS)

SDG No. & Title	Indian Knowledge System (IKS) Perspective
SDG 8 – Decent Work & Economic Growth	Historical Indian craftsmanship (<i>Shilpashastra</i> , artisan guilds) emphasized systematic design, planning, and quality assurance in product creation.
SDG 9 – Industry, Innovation & Infrastructure	Ancient engineering knowledge (<i>Yantras</i> , water-lifting machines, mechanical automata) reflects multidisciplinary integration in design and fabrication.
SDG 12 – Responsible Consumption & Production	Traditional Indian manufacturing practices focused on minimal material wastage and product longevity, e.g., sustainable construction of tools and machinery.
SDG 13 – Climate Action	Ancient practices like passive cooling, water harvesting, and natural ventilation in buildings demonstrate environmentally conscious design.
SDG 17 – Partnerships for the Goals	Traditional knowledge-sharing through <i>Guru-Shishya Parampara</i> promoted collaboration, mentorship, and interdisciplinary learning.

TEXT BOOKS:

1. Karl T Ulrich and Stephen D Eppinger, "Product Design and Development", Tata McGraw Hill, Fifth Edition, 2011.
2. John W Newstorm and Keith Davis, "Organizational Behavior", Tata McGraw Hill, Eleventh Edition, 2005.

REFERENCE BOOKS:

1. Hiriyappa B, "Corporate Strategy–Managing the Business", Author House, 2013.
2. Mark S Sanders and Ernest J McCormick, "Human Factors in Engineering and Design", McGraw Hill Education, Seventh Edition, 2013
3. Peter F Drucker, "People and Performance", Butterworth–Heinemann [Elsevier], Oxford, 2004.
4. Vinod Kumar Garg and Venkita Krishnan N K, "Enterprise Resource Planning Concepts", Second Edition, Prentice Hall, 2003.
5. Mark S Sanders and Ernest J McCormick, "Human Factors in Engineering and Design", McGraw Hill Education, Seventh Edition, 2013.

SKILLS:

- Global Trends Analysis and Product decision
- Product Development Methodologies and Management

➤ Mechanical, Electronics and Software Subsystems



Image Source Link :

<https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.amazon.in%2FFoundation-Integrated-Development-University-Elective->

[IIIebook%2Fdp%2FB08N1K3RG9&psig=AOvVaw2DMFUieifE8i7ACCPGs6S3&ust=1741479240821000&source=images&cd=vfe&opi=89978449&ved=0CBQQjRxqFwoTCOCX-O-Z-YsDFQAAAAAdAAAAABAE](https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.amazon.in%2FFoundation-Integrated-Development-University-Elective-IIIebook%2Fdp%2FB08N1K3RG9&psig=AOvVaw2DMFUieifE8i7ACCPGs6S3&ust=1741479240821000&source=images&cd=vfe&opi=89978449&ved=0CBQQjRxqFwoTCOCX-O-Z-YsDFQAAAAAdAAAAABAE)

Image file name: Foundation Skills In Integrated Product Development.

R22M.Tech. SE PROGRAM.

REVISED COURSE STRUCTURE – C22

Pre - Semester

Course Code	Title of the course	L	T	P	SL	C	Course type
22SAB101	Orientation Session	0	2	0	0	1	Binary graded
22AMB101	IT workshop and cyber security	0	0	2	0	1	Binary graded
	Total	0	2	2	0	2	

I Year I Semester

Course Code	Title of the course	L	T	P	SL	C	Course type
22SEB101	Theory of Elasticity and Plasticity	3	2	0	3	4	Professional Core
22SEB102	Design of Reinforced Concrete for Industrial Applications	2	2	2	2	4	Professional Core
22SEB103	Design and Behaviour of Pre-Engineered Building Systems	3	2	0	2	4	Professional Core
	Department Elective - 1	3	2	0	3	4	Elective
22SEB104	Teaching Assistantship	0	0	2	0	1	Binary graded
22ENB101	Indian Knowledge System	0	2	0	0	1	Binary graded
	Work-in-lieu of a course*					2	Elective & Floating Credit
	Sub Total	11	10	4	11	20	
	Add on course -1					3	
	Total	11	10	4	11	23	

I Year II Semester

Course Code	Title of the course	L	T	P	SL	C	Course type
22SEB105	Structural Dynamics	2	2	2	3	4	Professional Core
22SEB106	Finite Element Analysis of Structures	3	2	0	2	4	Professional Core
	Department Elective - 2	3	2	0	3	4	Elective
	Department Elective - 3	3	2	0	3	4	Elective
22MSB101	Research Methodology & IPR	1	2	0	1	2	Interdisciplinary
22SEB107	Interdepartmental Project	0	0	2	0	1	Project
22SEB108	Teaching Assistantship	0	0	2	0	1	Binary graded
	Sub Total	12	10	6	12	20	
	Add on course -2					3	
	Total	12	10	6	12	23	

II Year I Semester

Course Code	Title of the course	L	T	P	SL	C	Course type
22SEB201/ 22SEB202	Project/Internship	0	2	24	0	13	Project
	Sub Total	0	2	24	0	13	
	Add on course -3 (MOOCs Course)					3	
	Total	0	2	24	0	16	

II Year II Semester

Course Code	Title of the course	L	T	P	SL	C	Course type
22SEB203/ 22SEB204	Project/Internship	0	2	24	0	13	Project
	Sub Total	0	2	24	0	13	
	Add on course -4 (MOOCs Course)					3	
	Total	0	2	24	0	16	

Department Electives

Course Code	Title of the course	L	T	P	SL	C
22SEB801	Structural Optimisation	3	2	0	3	4
22SEB802	Earthquake Resistant Design of Structures	3	2	0	3	4
22SEB803	Advanced Concrete Technology	2	2	2	2	4
22SEB804	Bridge Engineering	3	2	0	3	4
22SEB805	Advance Foundation Engineering	3	2	0	3	4
22SEB806	Advanced Steel Structural Design	3	2	0	3	4
22SEB807	Repair and Rehabilitation of Structures	3	2	0	3	4

22SEB101 – THEORY OF ELASTICITY & PLASTICITY

Hours per week:

L	T	P	C
3	2	0	4

PREREQUISITE KNOWLEDGE: Engineering Mechanics, Strength of Materials & Mathematics.

COURSE DESCRIPTION AND OBJECTIVES:

The course Theory of Elasticity & Plasticity introduces the fundamental and advanced concepts of material behavior under elastic and plastic deformation. It covers stress–strain relationships, constitutive equations, compatibility conditions, and boundary conditions in both two and three dimensions, using tools such as tensor calculus, energy methods, and variational principles to analyze engineering problems. Students will develop the ability to apply mathematical formulations to solve elasticity and plasticity problems, evaluate axisymmetric and plane stress/strain conditions, and analyze yielding, flow rules, and hardening mechanisms in materials. The course aims to equip learners with strong analytical skills for stress–strain evaluation, structural analysis, and material behavior prediction in mechanical, structural, and aerospace engineering applications.

MODULE-1

18L+12T+0P=30Hours

UNIT-1

INTRODUCTION TO THE MATHEMATICAL THEORY OF ELASTICITY:

Elasticity, stress, strain, Hooke's law; two-dimensional idealizations – plane stress and plane strain problems; equations of equilibrium, strain–displacement relations, constitutive relations, compatibility conditions, displacement and traction boundary conditions.

UNIT-2

TWO-DIMENSIONAL ELASTICITY PROBLEMS

Two-dimensional problems in rectangular coordinates – stress function, solution by polynomials, Saint Venant's principle, bending of a cantilever, determination of displacements; two-dimensional problems in polar coordinates – general equations, problems of axisymmetric stress distribution, pure bending of curved bars, effect of circular hole on stress distribution in plates, concentrated force at a point on a straight boundary.

PRACTICES:

- Calculate stress and strain for a rectangular plate under uniaxial tension using Hooke's law and strain–displacement relations.
- Determine compatibility conditions for a given two-dimensional strain field.
- Derive the stress function for a cantilever beam using Saint Venant's principle.
- Analyse stress concentration due to a circular hole in a plate using analytical equations.
- Evaluate axisymmetric stress distribution in a curved bar under bending using theoretical equations.

MODULE-2

27L+18T+0P=45 Hours

UNIT-1:

INTRODUCTION TO CARTESIAN TENSORS

Transformation laws of Cartesian tensors, special tensors and tensor operations, the Kronecker's delta, the permutation tensor, the e-d identity, symmetry and skew-symmetry, contraction, derivatives and the comma notation, Gauss' theorem, the base vectors and some special vector operations.

UNIT-2:

ADVANCED CARTESIAN TENSOR APPLICATIONS

Eigenvalue problem of a symmetric second order tensor; equations of elasticity using index notation; stress-strain problems in three dimensions – principal stresses, principal strains, three-dimensional problems.

UNIT-3:

ENERGY THEOREMS AND VARIATIONAL PRINCIPLES OF ELASTICITY

Strain energy and complementary energy, Clapeyron's theorem, virtual work and potential energy principles, principle of complementary potential energy, Betti's reciprocal theorem, principle of linear superposition, uniqueness of elasticity solution.

PRACTICES:

- Verify transformation laws of Cartesian tensors by transforming a second-order stress tensor from one coordinate system to another and checking invariance of principal values.
- Compute tensor operations such as contraction, symmetry check, and permutation tensor application for given sample tensors, including verification of the e–d identity.
- Solve the eigenvalue problem for a symmetric second-order stress tensor and determine principal stresses and directions.
- Apply Clapeyron's theorem to calculate strain energy stored in a loaded beam and compare with results from direct deflection calculations.
- Demonstrate Betti's reciprocal theorem by analyzing two different loading cases on the same elastic body and verifying equality of work done.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs	Mapping with PSOs
1.	Apply the fundamental concepts of elasticity to determine stress, strain, and displacement fields in two-dimensional problems.	Apply	1 & 2	1
2.	Apply energy theorems, variation principles, and reciprocal theorems to solve elasticity problems.	Apply	1, 2 & 4	1

3.	Solve plane stress and plane strain problems using analytical methods such as stress functions and polynomial solutions.	Analyze	1, 2, 3 & 4	1, 2
4.	Analyze Cartesian tensor transformations, tensor operations, and their applications in elasticity problems.	Analyze	1, 2, 3 & 4	1, 2
5.	Determine principal stresses and strains in three-dimensional problems using index notation and eigenvalue methods.	Evaluate	1, 2, 3 & 4	1, 2

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS:



TEXT BOOKS:

1. Martin H. Sadd “Elasticity: Theory, Applications, and Numerics”, Elsevier publishing, 5th edition, 2022.
2. Timoshenko, S.P. and Goodier, J.N., Theory of Elasticity, Mc Graw Hill, Singapore, 1982.

REFERENCEBOOKS:

1. Chakrabarty, J, Theory of Plasticity, Elsevier, London, 2006.
2. Ameen, M., Computational Elasticity–Theory of Elasticity, Finite and Boundary Element Methods, Narosa Publishing House, 2004.
3. Srinath, L.S., Advanced Mechanics of Solids, Second Edition, Tata McGraw Hill, India, 2003.
4. Hill, R., Mathematical Theory of Plasticity, Oxford University Press, 1998.
5. Chen, W.F., and Han, D.J., Plasticity for Structural Engineers, Springer Verlag, 1998.

SKILLS:

- ✓ Ability to evaluate and interpret stress and strain states in engineering components under various loading conditions.
- ✓ Proficiency in applying Cartesian tensor operations and transformations in mechanics problems.
- ✓ Capability to derive and solve elasticity problems using equations of equilibrium, compatibility, and constitutive relations.
- ✓ Skill in using energy theorems and variational principles for solving structural and elasticity problems.
- ✓ Competence in solving plane stress/strain and axisymmetric problems in both rectangular and polar coordinates.

Image source: [Syllabus reorganization request](#)

Image file name: Theory of Elasticity & Plasticity

22SEB102 -DESIGN OF REINFORCED CONCRETE FOR INDUSTRIAL APPLICATIONS

Hours Per Week :

L	T	P	C
2	2	2	4

PREREQUISITE KNOWLEDGE:

Strength of Materials, Structural Analysis, Basic RCC Design (IS 456:2016).

COURSE DESCRIPTION & OBJECTIVES:

This course equips students with the knowledge and skills to design and detail reinforced concrete structural elements for industrial structures such as factory buildings, heavy machine foundations, storage structures, silos, bunkers, industrial floors, and special RCC systems. Emphasis is placed on limit state design, serviceability requirements, and seismic and dynamic considerations relevant to industrial environments. The course also integrates software-based design and detailing using STAAD. Pro, ETABS, and AutoCAD.

MODULE-1

18L+0T+12P = 30hours

UNIT-1:

DESIGN PHILOSOPHIES FOR INDUSTRIAL RCC

Review of concrete materials for industrial exposure (chemical, thermal, abrasion resistance), Limit State Design principles as per IS 456, IS 3370, IS 800 (RCC parts), IS 875 (industrial loadings), Working Stress Method vs Limit State Method in industrial contexts, Stress-strain behavior under cyclic and dynamic loads, Overview of fire-resistant concrete design

UNIT-2:

INDUSTRIAL LOADS AND STRUCTURAL BEHAVIOUR

Classification of industrial loads: dead, live, crane loads, impact, vibration, thermal, wind, seismic (IS 875, IS 1893, IS 800), Load combinations specific to industrial buildings and equipment foundations, Stress concentrations and fatigue in industrial structures.

PRACTICES:

- STAAD.Pro modeling of an industrial shed with crane girder
- Detailing of Raft and pile foundations for industrial buildings
- AutoCAD detailing of heavy beam and column connections.

MODULE-2

27L+0T+18P= 45hours

UNIT-1:

HEAVY-DUTY BEAMS, SLABS, AND INDUSTRIAL FLOORS

Design of heavy-duty beams and girders for concentrated loads and crane girders, Design of industrial slabs: machine foundations, elevated slabs, flat slabs, Serviceability: deflection, crack control, vibration limits

UNIT-2:**RCC COLUMNS AND FOUNDATIONS IN INDUSTRIAL CONTEXTS**

Short and long columns under biaxial bending (IS 456, SP-16), Pedestals and machine foundation blocks (IS 2974), Pile foundations and raft foundations for industrial loading.

UNIT-3:**STORAGE AND CONTAINMENT STRUCTURES AND SPECIAL CONSIDERATIONS**

Design of silos, bunkers, and bins (IS 4995), Water retaining and chemical storage tanks (IS 3370), Design for thermal and chemical stresses. Blast-resistant and fire-resistant design concepts, Seismic detailing for industrial RCC structures (IS 13920, IS 1893-Part 4), Retrofitting of industrial RCC members

PRACTICES:

- ETABS/STAAD model of a multi-bay industrial building under seismic loading
- AutoCAD detailing of silo reinforcement layout.
- Seismic detailing for industrial RCC structures (IS 13920)

COURSE OUTCOMES:

Upon successful completion of this course, students will be able to:

CO No.	Course Outcomes	Bloom's Level	Mapping with POs
1	Apply IS codes and advanced design principles to industrial RCC structures.	Apply	1,2,3,5
2	Analyze industrial loads and design RCC members for heavy-duty applications.	Analyse	1,2,3,4,5
3	Design and detail industrial slabs, beams, columns, and foundations using software tools.	Analyse	1,2,3,5,12
4	Integrate seismic and fire safety considerations in industrial RCC design.	Evaluate	1,2,3,4,5,11
5	Develop structural solutions for special industrial RCC structures such as silos and tanks.	Create	1,2,3,4,6,11

TEXT BOOK:

1. P.C. Varghese – Advanced Reinforced Concrete Design, PHI Learning.
2. N. Krishna Raju – Advanced Reinforced Concrete Design, CBS Publishers.
3. Devdas Menon & Unnikrishna Pillai – Reinforced Concrete Design, Tata McGraw Hill.

REFERENCE BOOKS:

1. IS 456:2016 – Code of Practice for Plain and Reinforced Concrete
2. IS 875 (Parts 1–5) – Code of Practice for Design Loads
3. IS 4995 – Design of Bins and Silos
4. IS 3370 – Concrete Structures for Storage of Liquids
5. IS 2974 – Design of Machine Foundations
6. SP-16 – Design Aids for Reinforced Concrete to IS 456
7. IIT Madras / NIT Tiruchirappalli RCC Industrial Design course notes.

SKILLS:

- ✓ Interpret and apply IS 456, IS 875, IS 1893, IS 2974, IS 3370, IS 4995 for industrial RCC design.
- ✓ Analyze industrial loading scenarios including dynamic, impact, crane, and thermal loads.
- ✓ Develop structural solutions that meet seismic, fire safety, and durability requirements.

22SEB103 – DESIGN AND BEHAVIOUR OF PRE-ENGINEERED BUILDING SYSTEMS

HOURS PER WEEK:

L	T	P	C
3	2	0	4

PREREQUISITE KNOWLEDGE:

Structural analysis, Design of steel structures, strength of materials, modern approaches in pre-engineered building systems.

COURSE DESCRIPTION AND OBJECTIVES:

This course provides an in-depth exploration of Pre-Engineered Building (PEB) systems, addressing their fundamental elements, load considerations, and structural design principles. It delves into the design of primary and secondary PEB components, including main frames, bracing, mezzanine systems, and crane beams, using modern analysis and modeling techniques. The course integrates code-based design methods (IS, AISC, MBMA), focuses on stability and optimization strategies, and emphasizes the practical application of structural design software. It also examines cost considerations, sustainable practices, and the relevance of Indigenous Knowledge Systems (IKS) in modern construction. Through a blend of theoretical instruction and hands-on practices, students will develop the ability to design and evaluate safe, economical, and environmentally responsible PEB solutions.

MODULE-1

12L+0T+12P=24 Hours

UNIT-1:

BACKGORUND ON PRE-ENGINEERED BUILDINGS

PEB Elements: – Elements of PEB, Primary materials and prefabricated component used manufacturing of PEB. Main frames, Secondary frame system: Sizes and Properties of Purlins & Girts – Bracing System, Sheeting and Cladding: Roof Sheeting and Wall sheeting. **Stability of PEB-** Shear buckling effect (d/t ratio exceeding 67ϵ), Effective Cross-sectional area concept for Compression Members d/t ratio exceeding 42ϵ ; Effect of d/t ratio for flexural members according to section classifications, Lateral Torsional Restraint system: Flange Bracing and design considerations.

UNIT-2:

CRANE SYSTEM IN PEB

CRANES- Different types of Cranes – EOT Cranes, Monorail Cranes, Underslung and Wall mounted - Design of Crane beams with and Without Top Channels (Surge Beam), Design of Crane Brackets – Frame design with different types of Cranes using software.

PRACTICES:

- Determination of size and properties of purlins and girts for various spans and loads.
- Study of bracing systems: tension-only bracing vs. rigid bracing.
- Calculation of shear buckling effect for thin-walled sections (d/t ratio $> 67\epsilon$).

- Calculation of effective cross-sectional area for compression members (d/t ratio $> 42\varepsilon$).
- Determination of section classification for flexural members as per IS 800.
- Design of lateral-torsional restraint system (flange bracing) for main frames.
- Selection of roof sheeting and wall sheeting profiles based on load and span requirements.
- Comparison of material costs for different sheeting and cladding systems.
- Calculation of vertical and horizontal loads due to crane operation (impact, surge, lateral loads).
- Design of crane beams (with and without top channel surge beam) as per IS 800.
- Calculation of wheel loads and load transfer mechanisms to crane brackets.
- Design of crane brackets for different crane loads and spans.

MODULE-2

18L+0T+18P=36 Hours

UNIT-1:

DESIGN OF MEZZANINE STRUCTURES

Mezzanine- Design of Mezzanine Beams, Columns and joists – Mezzanine decking, Different types of Mezzanine Floor systems – Grating, Chequered plate and Rigid floor System

UNIT-2:

DESIGN OF BASE PLATE CONNECTIONS

Base Plate: Types of base plate Pinned, Fixed, strength bolts, different types of bolts & grades, Lever arm, bolt Patten its effect on connection design, thickness of connection plate, base plate size, Selection of governing forces for base connection design & Anchor bolt.

UNIT-3: ANALYSIS AND DESIGN OF PRE-ENGINEERED BUILDINGS

2D and 3D Modelling of Portal Frames, Optimization Techniques, Comparison of software output with manual calculations. Design of Cold Formed Sections i.e., Purlins and Girts, Design of Roof Sheeting, trapezoidal, Standing seam sheeting, Welding technology, Manufacturing process, Erection Procedures.

PRACTICES:

- Calculation of design loads on mezzanine floors (dead load, live load, equipment loads).
- Design of mezzanine beams, columns, and joists using IS 800.
- Comparison of different mezzanine floor systems based on cost and load-carrying capacity.
- Identification of different types of base plates (pinned, fixed) and understanding their applications.
- Selection of bolt grades and types for base plate connections as per IS 3757 and IS 800.
- 2D modeling of a portal frame in structural analysis software (SAP2000/STAAD).
- 3D modeling of a complete PEB structure including main frames, secondary members, and bracing.
- Comparison of software output with manual calculations for critical members.
- Implementation of optimization techniques to reduce material usage while ensuring stability.
- Design of cold-formed sections (purlins and girts) based on span and loading requirements.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1.	Identify and describe the primary and secondary elements of PEB, including stability considerations and component interactions.	Apply	1, 2
2.	Analyze and evaluate the design considerations of lateral and torsional restraints, shear buckling, and effective cross-sectional areas for compression and flexural members in PEB systems.	Analyze	1, 2, 3
3.	Compute and design crane beam systems (with and without top channels) and crane brackets for different types of cranes used in PEB structures.	Analyze	1, 2, 3, 5
4.	Design mezzanine floor systems, including beams, columns, joists, and decking, while comparing various flooring system alternatives for cost and efficiency.	Apply	1, 2, 3, 11
5.	Select appropriate base plate connections considering bolt grades, patterns, lever arms, and base plate design criteria for different structural conditions.	Apply	1, 2, 3, 5
6.	Develop 2D and 3D structural models of PEB systems, apply optimization techniques, and compare software outputs with manual design calculations.	Create	1, 2, 3, 5, 9, 11

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS AND INDIAN KNOWLEDGE SYSTEM:



TEXT BOOKS:

1. Pre-Engineered Steel Building, K.S. Vivek and P.Vyshnavi, LAP Lamdert Academic Publishing.
2. Metal building systems: Design and Specifications, Third edition, Alexander Newman, McGraw- Hill Education.
3. McCormac, J. C., & Csernak, S. F. (2015). Structural Steel Design: LRFD and ASD (6th ed.). Pearson Education.

REFERENCEBOOKS:

8. Duggal. S. K, —Limit State Design of Steel Structuresl, Tata McGraw-Hill Education Publishers, 3rd edition, 2017.
9. Metal Building Manufacturers Association (MBMA). (2018). Metal Building Systems Manual. MBMA Publications.
10. American Institute of Steel Construction (AISC). (2017). Steel Construction Manual (15th ed.). AISC.

SKILLS:

- ✓ Structural load calculation
- ✓ Rigid frame analysis
- ✓ Connection design
- ✓ Code-based structural design (IS, AISC, MBMA)
- ✓ Section optimization
- ✓ Component identification and detailing
- ✓ Structural design software application
- ✓ Cost and efficiency evaluation
- ✓ Sustainable design integration
- ✓ Technical documentation preparation

22SEB105- STRUCTURAL DYNAMICS

Hours Per Week :

L	T	P	C
2	2	2	4

PREREQUISITE KNOWLEDGE:

Structural Analysis I, Structural Analysis II, Design of Concrete Structures and Design of Steel Structures

COURSE DESCRIPTION & OBJECTIVES:

The objective is to provide the fundamental understanding of the structural dynamics. The problem solving ability for dynamic response in civil engineering design, analysis and research. Introduce students to analytical and numerical methods in structural dynamics with emphasis on vibration. To provide opportunities to optimize system for desired dynamic response. To provide the basic framework for studying time-dependent response of mechanical

MODULE-1

18L+0T+12P= 30 hours

UNIT-1:

SINGLE DEGREE OF FREEDOM SYSTEMS

Introduction, Mathematical modelling, Equation of Motions, Solution methods of single degree of freedom systems (SDOF), Springs combination- series, parallel, inclined, Natural Frequency and Time Period.

UNIT-2:

FREE AND FORCED VIBRATION OF SDOF SYSTEM

Free vibration of undamped and damped system, Forced vibration of damped and undamped System – Response to harmonic forces- Half Power Bandwidth and periodic forces - Fourier Series, Duhamel Integrals.

PRACTICES:

- Calculate the stiffness of springs in parallel and in series.
- Calculate the Natural Frequency and Time Period.
- Calculate the Free and Forced Vibrations of SDOF Systems.
- Determine the response spectrum Analysis.
- Determine the Half Power Bandwidth and Periodic Forces.

MODULE-2

27L+0T+18P= 45 hours

UNIT-1:

TWO DEGREES OF FREEDOM SYSTEMS

Introduction, Concept of Shear Building, Free Vibrations of damped and undamped system, Forced Vibrations of damped and undamped system, Natural Frequencies and Mode Shapes.

UNIT-2: MULTI DEGREE OF FREEDOM SYSTEMS

Multiple degree of freedom systems (Three degrees of freedom system) - Introduction, free vibration analysis and forced vibration analysis, undamped systems, damped systems, Natural Frequencies and Normal Modes.

UNIT-3: SOLUTION OF STRUCTURAL ELEMENTS

Solution of beams and frames, machine foundation, Introduction to Random vibration.

PRACTICES:

- Calculate Free vibrations of damped and Undamped System for MDOF.
- Calculate Forced Vibrations of damped and Undamped system for MDOF.
- Calculate the Natural Frequencies of Two and MDOF Systems.
- Calculate the Modes of Different Systems.
- Calculate the Mode Shapes of Different Systems.

COURSE OUTCOMES:

Upon successful completion of this course, students will be able to:

CO No.	Course Outcomes	Bloom's Level	Mapping with POs
1	Apply the equation of motion for single degree of freedom systems.	Apply	1, 2, 3
2	Analyse the concepts of Springs combination.	Analyse	1, 2, 3
3	Evaluate the impact of damping on characteristics of vibrating system.	Evaluate	1, 2, 3
4	Evaluate the dynamic behaviour of Multi degree of freedom	Evaluate	1, 2, 3
5	Create the dynamic system with various degree of freedom.	Create	1, 2, 3

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS AND INDIAN KNOWLEDGE SYSTEM:



TEXT BOOK:

1. Mario Paz and Leigh; —Structural dynamics, CBS Publishers, 5th edition 2018.
2. Anil K Chopra, —Dynamics of structures; Prentice-Hall of India Limited, New Delhi.5th edition 2017.

REFERENCE BOOKS:

1. S.R Damodarasamy and S. Kavitha, —Basics of Structural Dynamics and Aseismic Designl PHI Learning 2018.
2. G. C. Hart & K. Wang; —Structural Dynamics for Structural Engineersl, John Wiley & Sons.1st edition 1991.
3. R.W. Clough and P.E. Penzien, —Dynamics of Structures (Theory and applications to structural engineering), McGraw-Hill. 1st edition, 1975.

SKILLS:

- ✓ understanding structural behavior under dynamic loads
- ✓ applying knowledge of vibrations, natural frequencies, and damping
- ✓ applying analytical techniques to solve structural dynamics problem
- ✓ applying numerical techniques to solve structural dynamics problem

22SEB106– FINITE ELEMENT ANALYSIS OF STRUCTURES

Hours per week:

L	T	P	C
3	2	0	4

PREREQUISITE KNOWLEDGE:

Structural Analysis, Mechanics of Solids, and Matrix Methods.

COURSE DESCRIPTION AND OBJECTIVES:

This course introduces the finite element method (FEM) for structural analysis. It covers variational formulations, element discretization, development of stiffness matrices, isoparametric formulation, and applications to structural and solid mechanics problems. The objective is to enable students to model structural systems using finite elements, derive governing equations, and solve real-life engineering problems involving trusses, beams, frames, plates, and axisymmetric structures.

MODULE-1

18L+12T+0P=30 Hours

UNIT-1:

INTRODUCTION AND METHODS OF STRUCTURAL ANALYSIS

Background and general description of the method – Applications, Review of various classical methods of Structural analysis- Matrix methods- Stiffness and Flexibility methods.

UNIT-2:

THEORY OF FINITE ELEMENT METHOD

Variational method-Discretization concept- Concept of element –various elements shapes – displacement models – Convergence- shape functions.

PRACTICES:

- Compare solutions of a simple beam using classical, matrix, and FEM approaches.
- Perform manual discretisation of a truss into finite elements.
- Develop shape functions for a 1D bar element.
- Verify convergence by refining mesh in a bar element problem.

MODULE-2

27L+18T+0P=45 Hours

UNIT-1:

FINITE ELEMENT FORMULATION

Development of shape functions for different elements-Spring-Truss-BeamPlane elements- Plane stress and plane strain-Assemblage of elements construction of stiffness matrix and loads – boundary conditions –patch test-solution of overall problem.

UNIT-2:

ISOPARAMETRIC FORMULATION

Determination of lateral forces using equivalent static method and modal analysis – Load combinations as per IS 1893 (Part 1) – Analysis of intermediate frame – Design and detailing of typical flexural member, column, footing – Detailing of exterior joint as per IS 13920.

UNIT-3:

APPLICATIONS TO STRUCTURAL AND SOLID MECHANICS Concept of

Isoperimetric element – One and Two dimensional elements. Natural coordinates- Development of Higher order elements- Lagrange – Serendipity – Interpolation formulation of element stiffness and loads.

PRACTICES:

1. Develop stiffness matrices for spring, truss, and beam elements manually.
2. Assemble element stiffness matrices for a 2D truss structure.
3. Perform patch test on a rectangular element.
4. Implement isoperimetric formulation for a quadrilateral element.
5. Analyze a simply supported beam using FEM and compare with classical solution.
6. Model and solve a 2D frame using FEM software.
7. Analyze axisymmetric problems (cylindrical pressure vessels, domes).
8. Perform FEM analysis of a plate using higher-order elements.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcome	Blooms Level	Mapping with POs	Mapping with PSOs
1	Explain the fundamentals, applications, and need for FEM in structural analysis.	Understanding	1, 2	1
2	Apply matrix methods and FEM concepts to discretize and model structures.	Applying	1, 2, 3	1, 2
3	Derive and develop element stiffness matrices and shape functions.	Analyzing	1, 2, 3, 4	1, 2
4	Apply isoperimetric formulation to 1D and 2D elements.	Evaluating	1, 2, 3, 4	1, 2
5	Solve real-world problems in trusses, beams, frames, plates, and axisymmetric structures using FEM.	Creating	1, 2, 3, 4	1, 2

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS AND INDIAN KNOWLEDGE SYSTEM:



Text Books:

1. C. S. Krishnamoorthy, Finite Element Analysis: Theory and Programming, Tata McGraw-Hill, 1994.
2. J. N. Reddy, An Introduction to the Finite Element Method, McGraw Hill, 4th Edition, 2019.
3. O. C. Zienkiewicz, R. L. Taylor, and J. Z. Zhu, The Finite Element Method: Its Basis and Fundamentals, Butterworth-Heinemann, 7th Edition, 2013.

Reference Books:

1. K. J. Bathe, Finite Element Procedures, Prentice Hall, 2006.
2. R. D. Cook, D. S. Malkus, M. E. Plesha, and R. J. Witt, Concepts and Applications of Finite Element Analysis, Wiley, 2001.
3. Daryl L. Logan, A First Course in the Finite Element Method, Cengage Learning, 6th Edition, 2015.

SKILLS:

After successful completion of this course, students will have the ability to:

- ✓ discretize structures into finite elements and select suitable element types.
- ✓ Develop and implement shape functions for 1D and 2D elements.
- ✓ Assemble global stiffness matrices and apply boundary conditions.
- ✓ Use isoperimetric formulation for higher-order elements.
- ✓ Perform FEM analysis for trusses, beams, frames, plates, and axisymmetric problems.
- ✓ Validate FEM results through patch tests and comparison with classical methods.
- ✓ Apply FEM software tools for real-world structural engineering problems.

Image source: <https://www.blog.jf.ag/wp-content/uploads/2022/01/Role-of-Finite-Element-Analysis-in-Enhancing-Structural-Integrity-688x360.png>

Image file name: Finite element analysis for structures

22SEB801 – STRUCTURAL OPTIMIZATION

Hours per week:

L	T	P	C
3	2	0	4

PREREQUISITE KNOWLEDGE:

Engineering Mechanics, Structural Analysis & basic computer programming.

COURSE DESCRIPTION AND OBJECTIVES:

This course covers unconstrained and constrained optimization techniques for single and multivariable problems, direct and gradient-based methods, and applications in civil and structural engineering. Students will learn classical analytical methods, modern numerical techniques, and computational tools for practical design optimization. This course aims to develop students' ability to formulate and solve structural optimization problems using analytical, numerical, and computational methods. It focuses on applying direct and gradient-based techniques to real-world structural designs, enhancing problem-solving skills, resource efficiency, and sustainable engineering practices.

MODULE-1

18L+12T+0P=30 Hours

UNIT-1:

INTRODUCTION TO STRUCTURAL OPTIMISATION

Concept of structural optimization – scope and significance – problem formulation: design variables, objective function, constraints, types of problems – optimality criteria for single and multivariable problems – examples of structural engineering applications.

UNIT-2:

SINGLE VARIABLE UNCONSTRAINED OPTIMIZATION

Bracketing methods: unrestricted search, exhaustive search – region elimination methods: interval halving, dichotomous search, Fibonacci method, golden section method – interpolation methods: quadratic interpolation, cubic interpolation – gradient-based methods: Newton–Raphson, secant, bisection methods.

PRACTICES:

- Identify and formulate three real-world structural optimization problems with defined design variables, objective functions, and constraints.
- For given single-variable functions, determine optimality using first and second derivative tests.
- Solve at least two optimization problems using unrestricted search and exhaustive search methods.
- Apply interval halving and golden section search to find the optimum of a given function and compare the number of iterations.
- Implement quadratic interpolation and Newton–Raphson methods in MATLAB/Python for given functions.

MODULE-2

27L+18T+0P=45Hours

UNIT-1:

MULTI-VARIABLE UNCONSTRAINED OPTIMISATION

Optimality criteria – unidirectional search – direct search methods: random search, grid search, univariate method, Hooke & Jeeves' pattern search, Powell's conjugate direction method, simplex method – gradient-based methods: steepest descent (Cauchy) method, conjugate gradient (Fletcher–Reeves) method, Newton's method, variable metric methods (DFP, BFGS).

UNIT-2:

CONSTRAINED OPTIMIZATION TECHNIQUES

Classical methods: direct substitution, constrained variation, method of Lagrange multipliers, Kuhn–Tucker conditions – linear programming problem: standard form, simplex method – indirect methods: elimination of constraints, transformation techniques, penalty function method.

UNIT-3:

ADVANCED CONSTRAINED OPTIMIZATION AND APPLICATIONS

Direct methods: Zoutendijk's method of feasible directions, Rosen's gradient projection method – applications in truss, beam, and frame optimization – use of computational tools – case studies in structural engineering design.

PRACTICES:

- Write MATLAB/Python code for the steepest descent and conjugate gradient methods for multivariable problems.
- Solve the same constrained optimization problem using the Lagrange multiplier method, penalty function method, and Rosen's gradient projection method, then compare results.
- Select a real truss or beam design and optimize it for minimum weight using any suitable method.
- Use an optimization toolbox (MATLAB, Excel Solver, or Python libraries) to solve a multivariable constrained structural optimization problem.
- Develop a mini-project integrating at least two optimization techniques for an actual civil engineering component, documenting methodology and results.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs	Mapping with PSOs
1.	Fundamental concepts, scope, and formulation of structural optimization problems in engineering design.	Apply	1	1
2.	Apply single-variable optimization techniques to engineering problems.	Apply	1, 2	1, 2
3.	Implement multi-variable unconstrained optimization methods for structural design.	Analyze	1, 2, 3 & 4	1, 2

4.	Solve constrained optimization problems using classical, direct, and indirect methods.	Evaluate	1, 2, 3 & 4	1, 2
5.	Integrate computational tools and optimization techniques in real structural engineering applications.	Create	1, 2, 3 & 4	1, 2

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS AND INDIAN KNOWLEDGE SYSTEM:



TEXT BOOKS:

- Arora J. S., Introduction to Optimum Design, Fourth edition, Academic Press Inc., 2016.
- Deb, K., Optimization for Engineering Design – Algorithms and Examples, Second edition, PHI Learning Pvt. Ltd., New Delhi, 2012.

REFERENCEBOOKS:

- Rao S. S., Engineering Optimization – Theory and Practice, John Wiley & Sons, Inc., New Jersey, 2009.
- Spillers, W.R., and MacBain, K.M., Structural Optimization, Springer, New York, 2009.
- Christensen, P.W., and Klarbring, A., An Introduction to Structural Optimization, Springer, New York, 2009.

SKILLS:

- ✓ Optimization Problem Formulation.
- ✓ Application of Numerical Methods.
- ✓ Computational Tool Utilization
- ✓ Efficient Structural Design

Image source: https://www.researchgate.net/figure/The-three-categories-of-structural-optimisation-a-sizing-optimisation-of-a-truss_fig22_267451070

Image file name: Structural Optimization

22SEB802 – EARTHQUAKE RESISTANT DESIGN OF STRUCTURES

Hours per week:

L	T	P	C
3	2	0	4

PREREQUISITE KNOWLEDGE:

Structural Analysis & Structural Dynamics.

COURSE DESCRIPTION AND OBJECTIVES:

This course provides an in-depth understanding of the concepts, principles, and practices for designing earthquake-resistant structures in compliance with Indian Standards. It covers seismic behaviour of buildings, lateral load resisting systems, ductility considerations, design procedures, and detailing requirements. The objective of this course is to equip students with the knowledge and skills to design earthquake-resistant buildings by understanding seismic forces, structural response, ductility requirements, and detailing provisions as per IS codes. It aims to develop proficiency in selecting appropriate lateral load resisting systems, analyzing structures using static and dynamic methods, applying code-based ductility criteria, and exploring advanced seismic protection strategies like base isolation.

MODULE-1

18L+12T+0P=30Hours

UNIT-1:

SEISMIC-RESISTANT BUILDING ARCHITECTURE

Introduction – Lateral load resisting systems: moment resisting frame, shear wall/bearing wall system, dual system – Building configuration: common problems and solutions – Building characteristics: mode shapes, fundamental period, building frequency vs ground period, damping, ductility, seismic weight, redundancy, non-structural elements, soil liquefaction – Foundations – Quality of construction and materials: concrete quality, joints, general detailing requirements.

UNIT-2:

DESIGN FORCES FOR BUILDINGS

Introduction – Equivalent static method – Mode superposition technique – Dynamic inelastic time history analysis – Advantages and limitations – Determination of lateral forces as per IS 1893 (Part 1): equivalent static method, modal analysis using response spectrum.

PRACTICES:

- Identify lateral load resisting systems in at least five existing buildings with sketches and classification.
- Analyse two building configurations and suggest modifications to improve seismic performance.
- Calculate fundamental period and mode shapes for a given RC frame using theoretical formulas.
- Compute lateral forces for a simple building model using the equivalent static method as per IS 1893.
- Compare results from equivalent static method and modal response spectrum method for the same building.

MODULE-2

27L+18T+0P=45Hours

UNIT-1:

DUCTILITY CONSIDERATIONS IN EARTHQUAKE RESISTANT DESIGN OF RCC BUILDINGS

Impact and importance of ductility – Requirements for ductility – Assessment: member and structural ductility – Factors affecting ductility – Ductility factors – IS 13920 ductility provisions.

UNIT-2:

EARTHQUAKE RESISTANT DESIGN OF A TWO-STOREY, TWO-BAY RCC BUILDING

Determination of lateral forces using equivalent static method and modal analysis – Load combinations as per IS 1893 (Part 1) – Analysis of intermediate frame – Design and detailing of typical flexural member, column, footing – Detailing of exterior joint as per IS 13920.

UNIT-3: BASE ISOLATION OF STRUCTURES

Introduction to seismic isolation – Considerations and basic elements – Seismic isolation design principles – Feasibility and configurations – Application examples in building design.

PRACTICES:

- Calculate ductility factors for a given RC member and compare with IS 13920 provisions.
- Design and detail a column and beam for given seismic forces ensuring ductility requirements.
- Prepare a complete reinforcement detailing for an exterior beam-column joint as per IS 13920.
- Perform a step-by-step design for a two-storey RC frame subjected to seismic loads using IS 1893.
- Develop a conceptual base isolation layout for a medium-rise building with sketches and material suggestions.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs	Mapping with PSOs
1.	Principles of seismic-resistant building architecture and code-based provisions.	Apply	1, 2	1
2.	Apply ductility provisions and assess member/structural ductility for RCC buildings.	Apply	1, 2, 3 & 4	1, 2
3.	Determine seismic design forces using equivalent static and dynamic methods as per IS 1893.	Evaluate	1, 2, 3 & 4	1, 2

4.	Design and detail RCC members, joints, and foundations for earthquake resistance as per IS 13920.	Create	1, 2, 3 & 4	1, 2
5.	Propose advanced seismic protection systems including base isolation for enhanced structural performance.	Create	1, 2, 3 & 4	1, 2

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS AND INDIAN KNOWLEDGE SYSTEM:



TEXT BOOKS:

1. Chopra, Anil K. – Dynamics of Structures: Theory and Applications to Earthquake Engineering, Pearson, 2023.
2. Agarwal, Pankaj, and Shrikhande, Manish – Earthquake Resistant Design of Structures, PHI Learning, 2022.

REFERENCEBOOKS:

3. IS 1893 (Part 1): 2016 – Criteria for Earthquake Resistant Design of Structures.
4. IS 13920: 2016 – Ductile Detailing of Reinforced Concrete Structures Subjected to Seismic Forces.

SKILLS:

- ✓ Ability to determine design forces and assess building response.
- ✓ Competence in detailing RCC members and joints for earthquake resistance.
- ✓ Proficiency in applying IS 1893 and IS 13920 for structural design.
- ✓ Capability to integrate base isolation and advanced seismic technologies.

Image source: <https://www.linkedin.com/pulse/guidelines-earthquake-resistant-design-structures-india-g-k-wbrpc>

Image file name: Earthquake Resistant Design of Structures

22SEB803 – ADVANCED CONCRETE TECHNOLOGY

Hours per week:

L	T	P	C
2	2	2	4

PREREQUISITE KNOWLEDGE:

Basic knowledge of cement, concrete technology, and Building Materials.

COURSE DESCRIPTION AND OBJECTIVES:

This course provides an in-depth understanding of cement chemistry, hydration mechanisms, microstructure development, admixtures, and special concretes. It aims to build competence in analyzing the properties of hardened concrete, evaluating durability, applying non-destructive testing, and exploring recent advancements in concrete technology. The course equips students with the knowledge to design and use various special concrete techniques, such as high-performance, self-compacting, and fiber-reinforced concrete, while addressing future challenges in concrete mechanics and technology.

MODULE-1

18L+0T+12P=30 Hours

UNIT-1:

CEMENT CHEMISTRY

Portland cement and its constituent phases-High temperature chemistry-The chemistry of Portland cement manufacture-Hydration of calcium silicate phases-Hydrated aluminates, ferrite and sulphate phases- Hydration of cement-composite cements.

UNIT-2:

MICROSTRUCTURE AND PROPERTIES OF HARDENED CONCRETE

Microstructure of Concrete-Strength Dimensional Stability-Durability-Curing of Concrete-Humidity performances-NDT methods

PRACTICES:

- Study the hydration process of different cement phases through calorimetry.
- Prepare and analyze thin sections of hardened concrete under microscope.
- Conduct compressive, tensile, and flexural strength tests on concrete specimens.
- Perform durability tests such as sulphate attack and chloride penetration.
- Carry out rebound hammer and ultrasonic pulse velocity tests (NDT).
- Compare the curing efficiency of water curing vs membrane curing.

MODULE-2

27L+0T+18P=45 Hours

UNIT-1: ADMIXTURES IN CONCRETE

Different types of admixtures-mode of action and compatibility issues. Recent advances in concrete-Progress in concrete technology-Structural light weight concrete

UNIT-2:

SPECIAL CONCRETES:

High Performance Concrete-Self Compacting Concrete-Self Curing Concrete-Fiber reinforced Concrete-Ferro cement Advances in concrete Mechanics-Future challenges in concrete technology

UNIT-3:

SUSTAINABLE AND EMERGING CONCRETES

Supplementary cementitious materials (fly ash, slag, silica fume, metakaolin), Geopolymer concrete: principles, properties, and applications, Recycled aggregate concrete: challenges and benefits, 3D printed concrete and digital fabrication, Self-healing concrete: bacterial and chemical mechanisms, Low-carbon concrete technologies and their role in sustainable development

PRACTICES:

- Design a concrete mix incorporating chemical and mineral admixtures.
- Prepare self-compacting concrete and evaluate workability using L-box, V-funnel, and slump flow tests.
- Cast and test lightweight aggregate concrete specimens for compressive strength.
- Produce and evaluate fibre reinforced concrete for strength and crack resistance.
- Design and test ferrocement panels for load carrying capacity.
- Compare performance of conventional concrete vs high-performance concrete in terms of strength and durability.
- Prepare geopolymer concrete mix using fly ash/slag and evaluate strength.
- Perform recycled aggregate concrete tests and compare with conventional concrete.
- Case study on applications of 3D printed and self-healing concretes.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcome	Blooms Level	Mapping with POs	Mapping with PSOs
1	Explain cement chemistry and hydration mechanisms.	Understanding	1, 2	1
2	Evaluate microstructure and properties of hardened concrete using NDT methods.	Analyzing	1, 2, 3 & 4	1, 2
3	Assess the role and compatibility of admixtures in concrete.	Applying	1, 2, 3	1, 2
4	Design and test special concretes like HPC, SCC, and FRC.	Creating	1, 2, 3 & 4	1, 2
5	Discuss future challenges and advances in concrete technology.	Evaluating	1, 2, 4	1, 2

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS AND INDIAN KNOWLEDGE SYSTEM:



Text Books:

- M. Neville and J. J. Brooks, Concrete Technology, Pearson Publications, 2006.
- P. Kumar Mehta, Paulo J. M. Monteiro, Concrete: Microstructure, Properties, and Materials, McGraw Hill Education, 4th Edition, 2017.
- Zongjin Li, Advanced Concrete Technology, John Wiley and Sons, Inc., 2011.

Reference Books:

- Santhakumar A. R., Concrete Technology, Oxford University Press, New Delhi, 2007.
- H. F. W. Taylor, Cement Chemistry, Thomas Telford, 2nd Edition, 1997.
- V. S. Ramachandran, Concrete Admixtures Handbook, Noyes Publications, 2nd Edition, 2002.
- Peter Hewlett and Martin Liska, Lea's Chemistry of Cement and Concrete, Elsevier Science and Technology Books, 2019.

SKILLS:

- ✓ After successful completion of this course, students will have the ability to:
- ✓ Perform cement hydration analysis and identify hydration products.
- ✓ Analyze concrete microstructure and assess strength–durability relationships.
- ✓ Conduct and interpret results from NDT methods (UPV, rebound hammer, etc.).
- ✓ Design concrete mixes incorporating admixtures and supplementary materials.
- ✓ Prepare, test, and evaluate special concretes (HPC, SCC, FRC, ferrocement).

Image source:

https://www.google.com/imgres?q=suggest%20an%20image%20for%20advanced%20concrete%20technology&imgurl=https%3A%2F%2Fwww.crown.co.za%2Fimages%2FLatest_news_2022%2FConstruction_World%2FEarly_preparation_to_qualify_for_Advanced_Concrete_Technology_training_urged.jpg&imgrefurl=https%3A%2F%2Fwww.crown.co.za%2Fconstruction-world%2Fproducts-and-services%2F21497-early-preparation-to-qualify-for-advanced-concrete-technology-training-urged&docid=xgnuLfQC1JsHPM&tbnid=AUizhvL3TuEP2M&vet=12ahUKEwiB1eKOq9-PAxV5xDgGHXCxAHYQM3oECGEQAA.i&w=600&h=400&hcb=2&ved=2ahUKEwiB1eKOq9-PAxV5xDgGHXCxAHYQM3oECGEQAA

Image file name: Advanced Concrete Technology

22SEB804 -BRIDGE ENGINEERING

Hours Per Week :

L	T	P	C
3	2	0	4

PREREQUISITE KNOWLEDGE:

Design of Reinforced Concrete Structures & Design of Steel Structures.

COURSE DESCRIPTION & OBJECTIVES:

The objective of this course is to understand the various types of bridges, codal provisions for loading and design standards of bridges, design the superstructure of bridge using different methods and loading conditions and to understand the design of bearings.

MODULE-1

18L+12T+0P = 30 hours

UNIT-1:

INTRODUCTION TO BRIDGE ENGINEERING

Introduction - Classification – Investigation for bridges - Economic span length- Loading standards – IRC and Railway loads – Impact.

UNIT-2: BRIDGE SUB & SUPER STRUCTURE

Evaluation of sub structures – Pier and abutments caps – Design of pier– Abutments – Type of foundations. Super Structure: Slab bridge- Wheel load on slab- effective width method- slabs supported on two edges- cantilever slabs- dispersion length- box culvert

PRACTICES:

- IRC loadings & standards.
- Design of pier.
- Types of foundation for bridges.
- Design of super structure.
- Case study on design of bridge.

MODULE-2

27L+18T+0P = 45 hours

UNIT-1:

DESIGN OF T-BEAM BRIDGE

Design of T beam bridge- Pigeaud's method- design of longitudinal girders- Guyon-Messonet method- Hendry Jaegar method- Courbon's theory. (Ref: IRC-21).

UNIT-2:

BEARINGS AND EXPANSION JOINTS

Importance of Bearings – Bearings for slab bridges – Bearings for girder bridges – Electrometric bearing – Joints – Expansion joints. Understand the complexities in design of bridges.

PRACTICES:

- Pigeaud's Method for design of T-Beam bridge.
- Design of longitudinal girders.
- Study on IRC 21.
- Bearings for bridges.
- Case study on complexities in bridge design

COURSE OUTCOMES:

Upon successful completion of this course, students will be able to:

CO No.	Course Outcomes	Bloom's Level	Mapping with POs
1	Apply the codal provisions and concept in the design of bridges.	Apply	1,2,4,5,9,10
2	Identify the suitability of bearings for bridges.	Apply	1,2,4,5,9,10
3	Analysis of sub and superstructure of bridge.	Analyse	1,2,4,5,9,10
4	Design of T-Beam bridge and Prestressed Concrete members.	Evaluate	2,3,4,5,9,10

TEXTBOOK:

- Jagadeesh T. R., Jayaram M. A, Design of bridge structures, PHI learning, 3rd edition, 2021.
- S. Ponnuswamy, Bridge Engineering, Tata Mc Graw - Hill Publishing Company Limited, New Delhi, 3rd edition, 2017

REFERENCE BOOKS:

- Structural design manual, Precast concrete connection details, Society for the studies in the use of precast concrete, Netherland Betor Verlag, 2009.
- Gerostiza C.Z., Hendrikson C. and Rehat D.R., Knowledge based process planning for construction and manufacturing, Academic Press Inc., 1994.
- Indian Road Congress IRC: 21 – 2000.

SKILLS:

- ✓ Identify the type of bridge suitable for different soil and environmental conditions.
- ✓ Design the bridge under primary and secondary loading conditions.
- ✓ Determination of suitability of bridge to the site condition.

<https://media.istockphoto.com/id/532021273/photo/construction-in-progress-of-a-mass-rapid-transit-line.jpg?s=612x612&w=0&k=20&c=8kxfQnLdTprqxGVzYGIBxEK5cQhRdfs2WqYiB5gbLU=>

22SEB805 – ADVANCED FOUNDATION ENGINEERING

Hours per week:

L	T	P	C
3	2	0	4

PREREQUISITE KNOWLEDGE:

Soil Mechanics, Basic Mathematics Engineering Geology

COURSE DESCRIPTION AND OBJECTIVES:

Advanced Foundation Engineering is a postgraduate course that provides in-depth knowledge of soil behavior, modern foundation systems, ground improvement techniques, soil–structure interaction, and seismic foundation design. It enables students to analyze complex geotechnical problems, design shallow and deep foundations using IS codes and advanced software like PLAXIS, GEO5, and MATLAB, and understand dynamic behavior of machine foundations. The course emphasizes sustainable foundation practices, digital tools such as BIM and IoT-based monitoring, and explores case studies of iconic structures and failures. Students will develop skills in laboratory investigations, numerical modeling, research, technical reporting, and will be prepared for careers in academia, consultancy, and geotechnical industry.

MODULE-1

12L+0T+12P=24 Hours

UNIT 1:

ADVANCED SOIL BEHAVIOUR & CRITICAL STATE FOR FOUNDATIONS

Critical State Soil Mechanics (CSSM) and stress–strain behavior under foundations.; Anisotropy, strain-softening, stress history, and structure effects in foundation soils.

Advanced shear strength: stress-path methods, cyclic loading, liquefaction potential.; Reliability and variability in soil parameters – Bayesian & probabilistic approaches.

UNIT 2:

SMART GEOTECHNICAL SITE INVESTIGATION & DIGITAL GROUND MODELLING

Integrated site characterization: borehole planning, sampling, GIS-based subsurface mapping.

Modern in-situ tests: CPTu & SCPTu, Pressuremeter Test (PMT), Dilatometer (DMT), MASW & geoelectrical methods.; Development of 3D digital ground models.; Data-driven interpretation using AI/ML for soil property prediction.

PRACTICES:

- This practical involves conducting Consolidated Undrained (CU) Triaxial Test with pore water pressure measurement to determine shear strength parameters under controlled drainage conditions. The soil sample is collected from the VFSTR campus near the Civil Engineering Department excavation site.
- This practical involves performing K_0 (at-rest) Consolidation Test to determine in-situ lateral earth pressure and compressibility characteristics of clay soil. The undisturbed sample is obtained from a construction site near VFSTR University main entrance.

- This practical involves conducting a Cyclic Triaxial Test to study the behavior of soil under repeated loading and to evaluate liquefaction potential. The soil sample is sourced from the low-lying area behind the VFSTR Mechanical Engineering Block.
- This practical involves determining critical state parameters (λ and κ) of soil by using results obtained from triaxial compression testing and plotting $p'-q$ and $v-\ln(p')$ relationships. Soil is collected from the VFSTR campus open ground near the cricket field.
- This practical involves carrying out the Standard Penetration Test in the borehole to determine N-values and evaluate soil resistance. The test location is the VFSTR campus borewell site adjacent to the Civil Engineering Department.
- This practical involves interpretation of Cone Penetration Test data using software to derive soil stratification and bearing capacity. CPT records are collected from the VFSTR proposed academic building foundation site.
- This practical involves creating a 2D/3D digital subsurface ground model using borehole log data and GIS tools. The borehole data used is from the VFSTR campus water tank foundation site.

MODULE-2

18L+0T+18P=36 Hours

UNIT 3:

ADVANCED SHALLOW FOUNDATION DESIGN AND PERFORMANCE MONITORING

Limit State Design for footings, rafts & mats.; Bearing capacity in layered/anisotropic soils, inclined & eccentric loads.; Elastic and consolidation settlements, foundation performance under cyclic & seismic loading.

Instrumentation: settlement plates, tiltmeters, strain gauges, IoT-based monitoring.

UNIT 4:

DEEP FOUNDATIONS – PILES, DRILLED SHAFTS & SMART MONITORING

Load-transfer analysis ($t-z$ and $q-z$ curves), pile-soil-structure interaction.; Axial, lateral, uplift behaviour, group action & negative skin friction.; Pile design using CPT-based methods, API/IS/EC codes, seismic/ liquefaction considerations.

Load testing: static, dynamic (PDA), integrity tests, wireless pile monitoring sensors.

UNIT 5:

GROUND IMPROVEMENT, SUSTAINABLE FOUNDATIONS & EMERGING TECHNOLOGIES

Ground improvement for foundations: PVDs, vibro-compaction, stone columns, deep soil mixing, jet grouting.; Use of geosynthetics, geocells, helical piles, micropiles, diaphragm & secant pile walls.; Bio-mediated soil improvement (MICP-Microbially Induced Calcite Precipitation).

Foundation sustainability: carbon footprint, recycled materials, life-cycle cost analysis.

Smart foundations: sensors, AI-based health monitoring, digital twins in geotechnics.

PRACTICES:

- This practical involves conducting a Plate Load Test to determine the bearing capacity and settlement characteristics of soil for shallow foundations. The test is performed at the VFSTR open ground near the Indoor Stadium.
- This practical involves predicting settlement of a square footing using Schmertmann's method and IS:8009 guidelines. The soil data is taken from a borehole drilled near the VFSTR Civil Engineering Block.
- This practical involves analyzing stress distribution below a shallow foundation using Boussinesq's and Westergaard's theories. The foundation details are based on a hypothetical footing designed for VFSTR lab building.
- This practical involves conducting a Static Axial Pile Load Test to determine load–settlement behavior and ultimate capacity of a driven pile. The test location is at the VFSTR new guest house construction site.
- This practical involves analyzing PDA (Pile Driving Analyzer) test data to evaluate dynamic bearing capacity using wave equation theory. Data is taken from pile installation near VFSTR girls' hostel extension.
- This practical involves preparing a model of a stone column in soft clay and studying load improvement and settlement reduction. Clay is collected from VFSTR low-lying agricultural field.
- This practical involves demonstrating ground improvement using Prefabricated Vertical Drains (PVD) with surcharge loading under controlled laboratory conditions at VFSTR Soil Mechanics Lab.
- This practical involves constructing a geogrid-reinforced soil foundation model and evaluating bearing capacity improvement. Materials used are from the VFSTR Geotechnical Engineering Laboratory.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs	Mapping with PSOs
1	Apply advanced soil mechanics principles to evaluate stress distribution, settlement, and consolidation in different soil types.	Apply	1, 2	1
2	Conduct site investigation and interpret field and laboratory soil test data for foundation design.	Apply	1, 2, 3	1
3	Design shallow and deep foundation systems considering bearing capacity, settlement, and soil–structure interaction.	Analyze	1, 2, 3, 4	1, 2
4	Apply numerical and analytical methods, including software tools (PLAXIS, GEO5, MATLAB), for foundation analysis.	Apply	1, 2, 4	1, 2
5	Evaluate ground improvement techniques and sustainable foundation solutions for challenging soil conditions.	Evaluate	1, 2, 3, 4	1, 2

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS AND INDIAN KNOWLEDGE SYSTEM:



Textbooks:

- Ou C.–Y. (Chang-Yu Ou et al.), Fundamentals of Foundation Engineering, Routledge, 1st Edition, 2024.
- Braja M. Das & Nagaratnam Sivakugan – Principles of Foundation Engineering, 10th Ed. (2024)
- V.N.S. Murthy, Advanced Foundation Engineering, CBS Publishers & Distributors, International Edition, 2022.
- ; Rohit Manglik, Foundation Engineering Advance, EduGorilla Publication, 2024.
- Pile Foundations – IS 2911 (Part 1–4): 2023 & Eurocode 7: 2024 updates

Reference Books

- Braja M. Das, Advanced Soil Mechanics, CRC Press, 5th Edition, 2022.
- V.N.S. Murthy, Geotechnical Engineering: Principles and Practices of Soil Mechanics and Foundation Engineering, CRC Press, 3rd Edition, 2022.
- Gopal Ranjan & A.S.R. Rao, Basic and Applied Soil Mechanics, New Age International, 4th Edition, 2022.
- Michael Tomlinson & John Woodward, Pile Design and Construction Practice, CRC Press, 6th Edition, 2014.

SKILLS:

- ✓ Ability to evaluate and interpret soil behavior, stress distribution, and settlement in different soil types for foundation design.
- ✓ Proficiency in conducting field investigations and laboratory soil testing, and interpreting geotechnical data for design purposes.
- ✓ Capability to design shallow and deep foundation systems, considering bearing capacity, settlement, and soil–structure interaction.
- ✓ Skill in applying numerical and analytical methods, including software tools like PLAXIS, GEO5, and MATLAB, for foundation analysis.
- ✓ Competence in evaluating and implementing ground improvement and sustainable foundation techniques for challenging soil conditions.

Image source: <https://www.technostructacademy.com/blog/wp-content/uploads/2024/05/1692330994246.webp>

Image file name: Advanced Foundation Engineering

22SEB806-ADVANCED STEEL STRUCTURAL DESIGN

Hours Per Week :

L	T	P	C
3	0	2	4

PREREQUISITE KNOWLEDGE: Structural Analysis, Basic Steel Design (IS 800:2007)

COURSE DESCRIPTION & OBJECTIVES:

This course focuses on the design and detailing of complex steel structures beyond conventional building frames. Students will learn to design industrial steel structures, trusses, plate girders, gantry girders, towers, chimneys, cold-formed sections, and composite structures using the latest IS codes and limit state method. It includes wind and seismic analysis, fatigue considerations, and software-based modeling and detailing

MODULE-1

18L+0T+12P= 30 hours

UNIT-1:

DESIGN PHILOSOPHY & CODE PROVISIONS

Review of IS 800:2007 – Limit State Method, Limit State vs Working Stress Method in advanced applications, Fatigue, buckling, and stability in steel design, Fire resistance and corrosion protection

UNIT-2:

LOADS, STRUCTURAL BEHAVIOUR & TALL STRUCTURES

Load types and combinations: dead, live, wind, seismic (IS 875, IS 1893), Dynamic loading and fatigue effects, Design of self-supporting lattice towers and guyed masts (IS 802), Transmission tower member design, Steel chimneys – wind and thermal stress design (IS 6533)

PRACTICES:

- STAAD.Pro model of an industrial steel building under wind load
- Tekla/AutoCAD connection detailing.
- Portal frames with rigid connections detailing

MODULE-2

27L+0T+18P= 72 hours

UNIT-1:

PLATE GIRDERS & BOX GIRDERS

Design of welded plate girders with and without stiffeners, Shear buckling, web stiffeners, flange design, Box girders for highway and railway bridges (IS 800, IRS codes), Serviceability and fatigue considerations in girders

UNIT-2:

TRUSSES, PORTAL FRAMES & RIGID CONNECTIONS

Design of roof trusses and lattice girders for various spans, Design of purlins (IS 801) and bracing systems, Portal frame design with rigid joints, Connection detailing for bolted and welded joints.

UNIT-3:

Cold-Formed & Composite Construction

Cold-formed steel sections (IS 801, IS 811) – local buckling, effective section properties, Composite beams, columns, and floors (IS 11384), Fire resistance and durability in composite structures, Detailing considerations for composite connections

PRACTICES:

- STAAD.Pro design of a welded plate girder bridge span
- ETABS model of a composite floor system
- AutoCAD/Tekla detailing of gusset plates, composite beams, and connections

COURSE OUTCOMES:

Upon successful completion of this course, students will be able to:

CO No.	Course Outcomes	Bloom's Level	Mapping with POs
1	Apply IS codes and limit state design principles to advanced steel structures.	Apply	1,2,3,5
2	Analyze wind, seismic, fatigue, and dynamic load combinations for tall and long-span steel structures.	Analyse	1,2,3,4,5
3	Design and detail plate girders, box girders, trusses, towers, chimneys, and portal frames.	Apply	1,2,3,5,12
4	Design cold-formed and composite steel-concrete structural elements.	Apply	1,2,3,4,5,11
5	Use structural software for advanced steel design and detailing.	Apply	1,2,3,5,12

TEXT BOOK:

- N. Subramanian – Design of Steel Structures, Oxford University Press.
- Duggal S.K. – Limit State Design of Steel Structures, McGraw Hill.
- Dayaratnam P. – Design of Steel Structures, Wheeler Publishers.

REFERENCE BOOKS:

- IS 800:2007 – General Construction in Steel – Code of Practice
- IS 875 (Parts 1–5) – Design Loads for Buildings and Structures
- IS 801, IS 811 – Cold-formed Steel Design
- IS 802 – Transmission Towers Design

- IS 6533 – Design of Steel Chimneys
- IS 11384 – Composite Construction in Structural Steel and Concrete
- SP-6 – Handbook for Structural Engineers (Steel)

SKILLS:

- ✓ Interpret and apply IS 800, IS 875, IS 1893, IS 802, IS 6533, IS 801, IS 811, IS 11384 for advanced steel design.
- ✓ Analyze wind, seismic, fatigue, and dynamic load effects on tall and long-span steel structures.
- ✓ Design and detail plate girders, box girders, trusses, towers, chimneys, and portal frames.
- ✓ Design cold-formed and composite steel-concrete members considering buckling and serviceability. Interpret and apply IS 456, IS 875, IS 1893, IS 2974, IS 3370, IS 4995 for industrial RCC design.

22SEB807 – REPAIR & REHABILITATION OF STRUCTURES

Hours per week:

L	T	P	C
3	2	0	4

PREREQUISITE KNOWLEDGE:

Concrete Technology, IS 456, Awareness of construction techniques and common structural components & Fundamentals of structural analysis and load paths.

COURSE DESCRIPTION AND OBJECTIVES:

This course focuses on the causes, assessment, and repair of distress in concrete structures. It covers the evaluation of deterioration mechanisms, condition survey methodologies, non-destructive and chemical testing techniques, selection of repair materials, and various rehabilitation strategies. The primary objective of this course is to impart knowledge on the causes and mechanisms of deterioration in concrete structures and to develop the ability to identify distress symptoms and evaluate structural conditions. Students will learn various diagnostic techniques, both destructive and non-destructive, to assess the extent of damage and determine appropriate repair and rehabilitation strategies.

MODULE-1

18L+12T+0P=30Hours

UNIT-1:

INTRODUCTION TO REPAIR AND REHABILITATION

Introduction to repair practices, distress identification, and repair management in reinforced concrete structures; causes of distress including structural overloading, poor construction practices, material degradation, permeability of concrete, exposure to aggressive agents, and durability concerns; models for deterioration of concrete; role of environmental factors in structural degradation.

UNIT-2:

CONDITION SURVEY AND DAMAGE ASSESSMENT

Objectives and stages of inspection; preliminary inspection, planning, detailed visual inspection, and field/laboratory testing; documentation of deterioration patterns; estimation of damage and evaluation of structural soundness; formulation of repair strategies based on inspection outcomes.

PRACTICES:

- Case study on a deteriorated concrete structure — distress mapping and photographic documentation.
- Preparation of a repair strategy plan for a given structural problem.
- Durability analysis using permeability test data.
- Visit to an ongoing repair site and report preparation.
- Preparation of distress cause–effect matrix for common concrete failures.

MODULE-2

27L+18T+0P=45 Hours

UNIT-1:

NON-DESTRUCTIVE AND CHEMICAL TESTING METHODS

Non-destructive evaluation methods including rebound hammer, ultrasonic pulse velocity, penetration resistance, pull-out testing, and core sampling; chemical testing procedures such as carbonation depth, chloride content, corrosion potential, cover meter survey, half-cell potentiometer, and resistivity measurement; case studies of RCC buildings with distress for damage identification and assessment.

UNIT-2:

SELECTION OF REPAIR MATERIALS AND METHODS

Criteria for selection of repair materials including strength, compatibility, durability, and application ease; materials such as premixed cement concrete, polymer-modified mortars, epoxy systems, polyester resins, and protective coatings; repair methods including guniting, shotcreting, polymer concrete, reinforcement replacement, impregnation, overlays, slurry injection, plate bonding, ferrocement jacketing, RCC jacketing, fiber wrapping, and electrochemical treatments.

UNIT-3:

REPAIR AND REHABILITATION STRATEGIES

Strategies for structural repair and rehabilitation; stress reduction techniques; strengthening and repair of columns, beams, and slabs; propping and temporary supports; foundation rehabilitation methods; preventive and corrective measures to extend service life; guidelines and codes of practice for sustainable repair solutions.

PRACTICES:

- Rebound hammer & UPV testing on an in-service structure — result interpretation.
- Carbonation depth measurement and chloride content determination.
- Demonstration/practice of guniting or shotcreting.
- Design and detailing of a fibre wrap retrofitting scheme for a column.
- Preparation of a rehabilitation proposal with cost estimation and method statement.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs	Mapping with PSOs
1.	Identify causes and mechanisms of deterioration in concrete structures.	Understanding	1, 2, 4, 6 & 7	1, 2
2.	Plan and execute condition surveys for distress assessment.	Applying	1, 2, 3, 4, 6 & 7	1, 2
3.	Select and conduct suitable NDT and chemical tests for evaluating structural integrity.	Applying	1, 2, 3, 4, 6 & 7	1, 2
4.	Recommend suitable repair materials and methods for different structural problems.	Analyzing	1, 2, 3, 4, 6 & 7	1, 2

5.	Design and plan rehabilitation strategies for various structural components and foundations.	Creating	1, 2, 3, 4, 6 & 7	1, 2
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MAPPING OF SUSTAINABLE DEVELOPMENT GOALS AND INDIAN KNOWLEDGE SYSTEM:



TEXT BOOKS:

- Concrete Structures: Repair, Rehabilitation and Retrofitting – Denison Campbell, Allen and Harold, CRC Press, 2022.

REFERENCEBOOKS:

- Concrete Repair to EN 1504 – Michael Raupach, Carmen Andrade, CRC Press, 2021.
- Handbook of Repair and Rehabilitation of RCC Structures – P. Bhattacharjee, McGraw Hill, 2023.
- Repair, Protection and Waterproofing of Concrete Structures – Philip A. Scallan, Elsevier, 2022.

SKILLS:

- ✓ Structural distress diagnosis.
- ✓ Non-destructive evaluation techniques.
- ✓ Repair material selection and method application.
- ✓ Rehabilitation strategy design and documentation.

Image source: <https://constrofacilitator.com/repair-and-rehabilitation-of-structure/>

Image file name: Repair & Rehabilitation of Structures

M.Tech. CSE

R22 C22 - COURSE STRUCTURE

Pre - Semester

Course Code	Title of the course	L	T	P	C	Course type
22SAB101	Orientation Session	0	2	0	1	Binary graded
22AMB101	IT workshop and cybersecurity	0	0	2	1	Binary graded
	Total	4			2	

I Year I Semester

Course Code	Title of the course	L	T	P	C	Course type
22CSB101	Data Structures and Algorithms	2	2	2	4	Professional Core
22CSB102	Machine Learning	2	2	2	4	Professional Core
22CSB103	Internet of Things	2	2	2	4	Professional Core
	Department Elective	3	2	0	4	Elective
22CSB104	Teaching Assistantship	0	0	2	1	Binary graded
22ENB101	Indian Knowledge System	0	2	0	1	Binary graded
22CSB109	Work-in-lieu of a course*				2	Elective & Floating Credit
	Sub Total				20	
	Add on course -1				3	
	Total				23	

I Year II Semester

Course Code	Title of the course	L	T	P	C	Course type
22CSB105	Cloud Computing	2	2	2	4	Professional Core
22CSB106	Big Data and Analytics	2	2	2	4	Professional Core
	Department Elective	3	0	2	4	Elective
	Department Elective	3	0	2	4	Elective
22MSB101	Research Methodology & IPR	1	2	0	2	Interdisciplinary
22CSB107	Interdepartmental Project	0	0	2	1	Project
22CSB108	Teaching Assistantship	0	0	2	1	Binary graded
	Sub Total	11	06	12	20	
	Add on course -2				3	
	Total				23	

II Year I Semester

Course Code	Title of the course	L	T	P	C	Course type
22CSB201 / 22CSB202	Internship / Project	0	2	24	13	Project
	Sub Total	0	2	24	13	
	Add on course -3 (MOOCs Course)				3	
	Total				16	

II Year II Semester

Course Code	Title of the course	L	T	P	C	Course type
22CSB203 / 22CSB204	Internship / Project	0	2	24	13	Project
	Sub Total	0	2	24	13	
	Add on course -4 (MOOCs Course)				3	
	Total				16	

DEPARTMENT ELECTIVES–STREAM-WISE

Artificial Intelligence and Machine Learning

Course Code	Course Title	L	T	P	C
22CSB801	Artificial Intelligence	3	0	2	4
22CSB802	Artificial Neural Networks	3	2	0	4
22CSB803	Deep Learning	3	0	2	4
22CSB804	Computer Vision	3	0	2	4
22CSB805	Pattern Recognition	3	2	0	4
22CSB806	Digital Image Processing	3	0	2	4

Data Science

Course Code	Course Title	L	T	P	C
22CSB807	Data Handling and Visualization	3	0	2	4
22CSB808	Statistical Foundations of Data Science	3	0	2	4
22CSB809	Natural Language Processing	3	2	0	4
22CSB803	Deep Learning	3	0	2	4
22CSB810	Time Series Analysis and Forecasting	3	0	2	4
22CSB811	Kernel Methods for Pattern Analysis	3	0	2	4

Cyber Security

Course Code	Course Title	L	T	P	C
22CSB812	Wireless Sensor Networks	3	0	2	4
22CSB813	Mobile Ad-hoc Networks	3	0	2	4
22CSB814	Blockchain Technologies	3	0	2	4
22CSB815	Mobile and Wireless Security	3	0	2	4
22CSB816	Advanced Cryptography	3	0	2	4
22CSB817	Digital Forensics	3	0	2	4

B.TECH. PROGRAM.
MAJOR REVISION - R22 & C22
COURSE STRUCTURE – C22

Induction program

Course Code	Course Title	L	T	P	SL	C	Course category
22SA101	Orientation program (Induction Program)	0	2	0	0	1	Binary graded
Total		0	2	0	0	1	

Pre - semester

Course Code	Course Title	L	T	P	SL	C	Course category
22MT101	Foundations of Engineering Mathematics	0	3	2	0	1	Basic Sciences
22MT102	Engineering Mathematics Fundamentals						
22EN101	English Language and Communication	0	3	2	0	1	Humanities
22TP101	Foundation to Quantitative Aptitude and Logical Reasoning	0	5	0	0	1	Humanities
22AM101	IT Tools	0	0	2	0	1	Basic Engineering
22SS104	Stories of Indian Independence	0	2	0	0	1	Binary graded
22EN102	Universal Human Values	0	2	0	0	1	Binary graded
Sub-Total		0	15	06	0	06	
Total		21			0	06	

I Year I Semester (MPC Stream)

Course Code	Course Title	L	T	P	SL	C	Course category
22MT103	Linear Algebra	3	2	0	3	4	Basic Sciences
22MT105	Calculus and Ordinary Differential Equations						
22PY101	Engineering Physics	3	0	2	3	4	Basic Sciences
22CT102	Engineering Chemistry						
22EE101	Basic of Electrical & Electronics Engineering	2	0	2	2	3	Basic Engineering
22ME101	Engineering Drawing						
22CS101	Programming in C	2	0	4	2	4	Basic Engineering
22EN103	English Proficiency and Communication Skills (PET)	0	0	2	0	1	Humanities
22CT101	Environmental Studies	2	2	0	2	3	Basic Sciences
22MS101	Management Studies						Humanities
						1	Binary graded
						1	Binary graded
						1	Binary graded
Total						22	

I Year II Semester (MPC Stream)

Course Code	Course Title	L	T	P	SL	C	Course category
22MT103	Linear Algebra	3	2	0	3	4	Basic Sciences
22MT105	Calculus and Ordinary Differential Equations						
22PY101	Engineering Physics	3	0	2	3	4	Basic Sciences
22CT102	Engineering Chemistry						
22EE101	Basic of Electrical & Electronics Engineering	2	0	2	2	3	Basic Engineering
22ME101	Engineering Drawing						
22CS102	Problem Solving through Python	2	0	2	2	3	Basic Engineering
22EN104	Technical English Communication	1	0	2	1	2	Humanities
22CT101	Environmental Studies	2	2	0	2	3	Basic Sciences
22MS101	Management Studies						Humanities
22CY101	Cyber security	0	1	1	0	1	Basic Engineering
						1	Binary graded
						1	Binary graded
						1	Binary graded
						1	Binary graded
Total						22	

II Year I Semester

Course Title	L	T	P	SL	C	Course category
Maths (P&S)	3	2	0	3	4	Basic Sciences
Dept. Specific – Physics / Domain Subject Semiconductor Physics	2	0	2	2	3	Basic Sciences
Data Structures	2	2	2	2	4	Basic Engineering
Design Thinking and Engineering Orientation		2			1	Basic Engineering
Signals and Systems	2	2	2	2	4	Professional Core-1
Digital Electronics	2	2	2	2	4	Professional Core-2
Network Theory	3	2	0	3	4	Professional Core-3
Total	14	12	8	14	24	34

II Year II Semester

Course Title	L	T	P	SL	C	Course category
Dept. Specific - Maths (NUMERICAL METHODS)	2	2		2	3	Basic Sciences
Industry – Interface (I ²) Course			2		1	Dept. Elective-1
	3			3	3	Open Elective-1
Electronics Devices and Circuits	3	-	2	3	4	Professional Core-4
Microcontrollers	2	2	2	2	4	Professional Core-5
FPGA based System Design	2	2	2	2	4	Professional Core-6
Communication Systems	2	2	2	2	4	Professional Core-7
					1	Project
Total					24	

III Year I Semester

Course Title	L	T	P	SL	C	Course category
Soft Skills Laboratory			2		1	Humanities
Quantitative Aptitude & Logical Reasoning		2			1	Humanities
Digital Signal Processing					3	Dept. Elective-2
Control Systems	2	2	0	2	3	Professional Core-8
Analog IC Design	2	2	2	2	4	Professional Core-9
EMTL	3	0	2	3	4	Professional Core-10
DICD	3	0	2	3	4	Professional Core-11
Sub-Total					20	
Honours/Minors (Add-on) VLSI Testing/ Nano Electronic Device Modelling/ Linux based course					4	Honours/Minors
Total					24	

III Year II Semester

Course Title	L	T	P	SL	C	Course category
Professional Communication Skills					1	Humanities
Verification Using System Verilog					4	Dept. Elective-3
Advanced Digital System Design					4	Dept. Elective-4
					3	Open Elective-2
Scripting language	3	0	2	3	4	Professional Core-12
Microchip Fabrication technology	2	0	2	2	3	Professional Core-13
					1	Project
Sub-Total					20	
Honours/Minors (Add-on) Mixed Signal Design/ Thin Films Characterization/ Photovoltaic Devices and Energy Conversion					4	Honours/Minors
Total					24	

IV Year I Semester

Course Title	L	T	P	SL	C	Course category
Dept. Specific (Professional Ethics)		2	2		2	Humanities
CMOS RFIC Design/System-on-Chip Design /ASIC Design					4	Dept. Elective-5
Photonics and Optical Circuits/Compound Semiconductor Devices/ AI in VLSI Design					4	Dept. Elective-6
Work-in-Lieu of Course			8		4*	Dept. Elective-7
					3	Open Elective-3
Sub-Total					17	
Honours/Minors (Add-on) Hardware security/Low Power Digital circuit Design/ MEMS/ NEMS					4	Honours/Minors
Total					21	

IV Year II Semester

Course Title	L	T	P	SL	C	Course category
Project/Internship					12	Project/Internship
Sub-Total					12	
Honours/Minors (Add-on) :-IoT Architectures/ Neuromorphic Computing/ Quantum Computing in VLSI					4	Honours/Minors
Total					16	

22ECXXX – SEMICONDUCTOR PHYSICS AND DEVICES

Hours per week:

PREREQUISITE KNOWLEDGE: Basics of Physics, Basic concept of Differentiation and Integration.	L	T	P	SL	C
	2	0	2	2	3

COURSE DESCRIPTION AND OBJECTIVES:

This course is aimed at offering fundamental concepts of semiconductor Physics and devices . It starts with the concepts of the fundamentals of semiconductors, how it brings revolution into the industry. Then discussion will happen on Junction Diode, Transistor, MOSFET and other basic devices that are designed with semiconductor materials. As a first-level course in electronics, the objective of this course is to form the basis for the understanding of advanced electronic courses that are offered in subsequent semesters.

MODULE-1

12L+0T+06P+12 SL= 30 Hours

UNIT-1: Introduction to Semiconductor Physics:

Electrons in periodic Lattices, E-k diagrams, Energy bands, intrinsic and extrinsic semiconductor, direct and indirect bandgap semiconductors, elemental and compound semiconductor

UNIT-2: Semiconductor Equations

Introduction to semiconductor equations and carrier statistics: Poisson's and continuity equations, Fermi-Dirac statistics and Boltzmann approximation to the Fermi Dirac statistics.

PRACTICES:

- To determine the static and dynamic resistances of given P-N Junction diode
- To determine the break down voltage of given Zener diode
- Determination of the ripple factor and efficiency of Half wave Rectifier with and without filter
- Determination of the ripple factor and efficiency of Full wave Rectifier with and without filter
- Study of I/P and O/P response of clippers and clamper circuits for a given sine wave input

MODULE-2

27L+0T+18P+27SL=48 Hours

UNIT-1: Semiconductor Diodes:

Barrier formation in metal semiconductor junctions, PN homo and hetero- junctions; characteristics, I-V characteristics, and small signal switching models; Avalanche breakdown, Zener diode, Schottky diode, Tunnel Diode, IMPATT Diode, Gunn Diode, Narrow base diode.

UNIT-2: BJT:-

Structure, operation, I-V characteristics, Ebers-Moll Model, CE, CB, CC Configurations, large and small signal models.

UNIT-3: Field Effect Devices:

JFET/HEMT, MIS structures and MOSFET operation; MOSFET characteristics and small signal models; Common emitter and common source amplifiers; Emitter and source followers

PRACTICES:

- To determine I/P and O/P Characteristics of BJT in CB Configuration
- To determine I/P and O/P Characteristics of BJT in CE Configuration
- To determine I/P and O/P Characteristics of BJT in CC Configuration
- To determine the amplification factor of given MOSFET through Drain and transfer characteristics

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Understand the semiconductor device physics	Understanding	1,2	1,2,11
2	Understand the principle behind the PN junctions formation	Apply	2	1,2,11
3	Analyze the configurations of BJT/MOSFET	Apply	2	1,2,5,11
4	Create the BJT/MOSFET model for low frequency application	Analyse	2	1,2,3,5,11

Mapping of SDGs and IKS**Sustainable Development Goals (SDGs)**

SDG 4 (Quality Education)

SDG 9 (Industry, Innovation, and Infrastructure)

SDG 11 (Sustainable Cities & Communities)

SDG 12 (Responsible Consumption and Production)

Indian Knowledge System**No****TEXT BOOKS:**

1. Solid State Electronic Devices, B. G. Streetman, and S. K. Banerjee, Pearson, 7th edition, 2018.
2. Semiconductor Physics and Devices, D. Neamen, and D. Biswas, McGraw-Hill Education, 4th edition, 2017..

REFERENCEBOOKS:

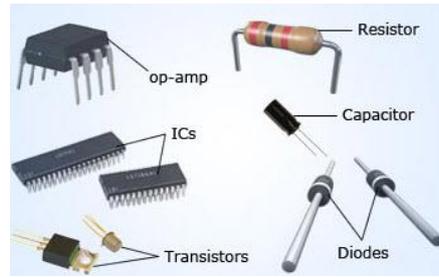
1. Fundamentals of Microelectronics, B. Razavi, Wiley, 3rd Edition, 2021.
2. Physics of Semiconductor Devices, S. M. Sze and K. N. Kwok, John Wiley & Sons, 3rd edition, 2006.
3. Electronic Devices and Circuit Theory, Robert L Boylestad and Louis Nashelsky, Pearson, 11th Edition, 2018.

SKILLS:

- Understand the basic of Semiconductor.
- Able to analyze semiconductor devices.
- Able to design DC sources
- Able to understand Amplifiers

Image source [https://www. elprocus.com /wp-content/ uploads/ 2016/06/2016-06-10_11-36-59.jpg](https://www.elprocus.com/wp-content/uploads/2016/06/2016-06-10_11-36-59.jpg)

Image file name:



22CS201 - DATA STRUCTURES

Hours Per Week:

L	T	P	SL	C
2	2	2	2	4

PREREQUISITE KNOWLEDGE: Programming in C

COURSE DESCRIPTION & OBJECTIVES:

This course is aimed at offering fundamental concepts of data structures and explains how to implement them. It begins with the basic concepts of data, data structures and then introduces the primitive and non-primitive data structures in detail. It forms the basis for understanding various ways of representing data and its usage in different computing applications.

MODULE-1

12L+12T+12P+12SL= 48 Hours

UNIT-1

DATA STRUCTURES BASICS:

Basic Terminology – data, information, datatype; Data Structures – Introduction, storage structures- sequential and linked storage representations; classification of data structures. Applications of data structures.

Searching: Linear Search and Binary Search.

Sorting: Selection Sort, Bubble Sort, Insertion Sort, Quick Sort and Merge Sort.

UNIT-2

LINKED LISTS, STACKS & QUEUES:

Linked List: Introduction, Types of linked list – Singly linked list, doubly linked list and circular linked list, representation of linked list, Operations of linked list: Traverse forward/reverse order, searching, insertion and deletion; Applications of linked lists.

Stack – Introduction, array and linked representations, implementation, and their applications;

Queue – Introduction, array, and linked representations, implementation; Types – Linear, circular and doubly ended queues – operations; Applications of Queues.

PRACTICES:

Problems on Recursion – Level 1

- Find the product of 2 numbers using recursion.
- Find the sum of natural numbers using recursion.
- Find the factorial of a number using recursion.
- Find the Nth term of the Fibonacci series using recursion.
- Calculate the power using recursion.
- Write a recursive program for checking if a given number is a prime number.
- Given two integers write a function to sum the numbers without using any arithmetic operators.
- Convert a decimal to binary using recursion.
- Print all factors using recursion.
- Find the maximum product of digits among numbers less than or equal to N.

Problems Recursion – Level 2

- Implement insertion sort recursively.
- Write a program to find the numbers less than N that are product of exactly 2 distinct prime numbers - using recursion.
- Implement selection sort recursively.
- Find the middle of a singly linked list using recursion.
- Find the sum of even numbers of an array using recursion.

- Check if a given array is in sorted order using recursion.
- Print alternate nodes of a linked list using recursion.
- Reverse a doubly linked list using recursion.
- Write a recursive function that returns all permutations of a given list.
- Implement bubble sort recursively.

Problems on Sorting and Searching – Level 1

- Implement the insertion sort function.
- Implement the bubble sort function.
- Implement the quick sort function.
- Implement the merge sort function.
- Implement the selection sort function.
- Implement linear search function.
- Implement binary search function.

Problems on SLL – Level 1

- Implement the insert function to insert nodes into a singly linked list (ascending order).
- Implement the insert function to insert nodes into a singly linked list (descending order).
- Implement the search node function.
- Implement the delete node function.
- Display forwards function.
- Display backwards function.
- Count the number of nodes in a singly linked list.
- Swap alternate nodes of a singly linked list.
- Move last node to the front of the linked list.
- Move first node to the last of the linked list.

Problems On Stacks – Level 1

- Implement two stacks using a single array.
- Given an array replace every element with nearest greater element on the right.
- Given a stack reverse the elements using only push and pop functions.
- Postfix evaluation using stack.
- Balance symbols.
- Find the middle element in a stack.
- Remove the middle element from a stack.
- Implement push and pop using a linked list.
- Given an array of characters with the middle marked by X, check if the string is a palindrome.
- Maximum sum in sliding window.

Problems On Queues – Level 1

- Write a program to accept two numbers as input check if they are equal.
- Write a program to accept two characters as input and check if they are equal.
- Write a program to accept two numbers as input and print the greater of the 2 numbers.
- Write a program to accept two numbers as input and print the lesser of the 2 numbers.
- Write a program to accept 3 numbers as input and print the maximum of the 3.
- Write a program to accept 3 numbers as input and print the minimum of the 3.
- Write a program to accept a number as input and print EVEN if it is an even number and ODD if it is an odd number.
- Write a program to accept a number as input and check if it is divisible by 3. If it is divisible by 3 print YES else print NO.
- Write a program to accept a number as input and check if it is divisible by both 3 & 5. If it is divisible print YES else print NO.
- Write a program to accept a number as input and check if it is positive, negative or zero.

Problems on DLL – Level 1

- Implement insert function.
- Implement display forward function.
- Implement display backward function.
- Implement a search function.
- Implement delete function.
- Reverse a doubly linked list from M to N.
- Find the sum of the odd and even nodes.
- Count odd keys of the linked list.
- Merge two sorted lists.
- Delete adjacent duplicate nodes.

Problems on CLL – Level 1

- Insert function (circular doubly linked list).
- Search function.
- Display forward.
- Display backward.
- Delete node (circular doubly linked list).
- Print the middle N nodes of a circular singly linked list.
- Move the last node of a circular singly linked list to the beginning.
- Delete adjacent duplicate nodes of a circular singly linked list.
- Delete nodes greater than a value from a circular doubly linked list.
- Find the sum of the nodes of a circular linked list.

Problems on Linked List – Level 2

- Given 2 sorted linked lists, print the common elements.
- Reverse a list (using Stack).
- Given a pointer to a node (not the last node), delete the node.
- Reverse a list (Recursive).
- Reverse a list (Iterative).
- Reverse a singly linked list in pairs (recursive).
- Reverse a singly linked list in pairs (iterative).
- Check if a singly linked list is a palindrome or not.
- Remove the loop if exists.
- Given 2 linked lists with data in the ascending order, merge them into a single list.

MODULE-2

18L+18T+18P+18SL=72 Hours

UNIT-1

TREES:

Trees: Basic Terminology, Binary Tree – Introduction, properties, array, and linked representations; Tree traversals and their implementation;

UNIT-2

Huffman coding using Binary Tree, Heap Sort, BST – definition and operations, AVL trees – definition and construction; Applications of binary trees.

UNIT-3

GRAPHS & HASHING:

Graphs: Basic Terminology, Traversals - Breath First Search(BFS) and Depth First Search(DFS); Applications of graphs. Single Source Shortest Path using *Dijkstra's Algorithm* and Bellman-Ford Algorithm.

Hashing: Introduction, Different hash functions, collision: avoidance and handling methods.

PRACTICES:

Problems on BST – Level 1

- Insert function.
- Insert function (recursive).
- Search function.
- Pre order traversal.
- Post order traversal.
- In order traversal.
- Level order traversal.
- Delete child node.
- Delete parent node.
- Delete nodes greater than a value from a circular doubly linked list.
- Implement the Heap sort function.
- Implement Huffman coding using Binary Tree

Problems on Graphs – Level 1

- Implement Graph data structure.
- Implement BFS - iterative solution.
- Implement BFS - recursive solution.
- Implement DFS - iterative solution.
- Implement DFS - recursive solution.
- Check if given graph is strongly connected or not.
- Check if given graph is strongly connected or not - using DFS.
- Given a graph find the arrival and departure time of its vertices in DFS. Arrival time is the time when the vertex was explored for the first time, and departure time is the time at which all the neighbours are explored and are ready to backtrack.
- Given a directed acyclic graph and a source vertex, find the cost of the shortest path from source vertex to all other vertices present in the graph. If a vertex cannot be reached from given source vertex that distance may be printed as infinite.
- Given an undirected graph, check if the graph is 2 edge connected or not.

Problems on Hashing – Level 1

- Print a binary tree in vertical order.
- Find whether an array is subset of another array.
- Given an array A [] and a number x, check for pair in A [] with sum as x.
- Minimum operation to make all elements equal in array.
- Maximum distance between two occurrences of same element in array.
- Check if a given array contains duplicate elements within k distance from each other.
- Find duplicates in a given array when elements are not limited to a range.
- Most frequent element in an array.
- Smallest subarray with all occurrences of a most frequent element.
- First element occurring k times in an array.

Problems on Graphs – Level 2

- Find the shortest graph distances between every pair vertex in a given path. Assume that the graph does not have any negative edges.
- Find the shortest graph distances between every pair of vertices in a given path. The graph can have negative edges.
- Detect cycle in DFS.
- Count the number of connected components of a graph represented in the adjacent matrix.
- Count the number of connected components of a graph represented in the adjacent matrix - using DFS.

- Find a spanning tree - not necessarily a minimum spanning tree.
- Detect cycle in an undirected graph.
- Given an undirected graph, find its depth.
- Determine if a directed graph has a unique topological ordering.
- Given a directed acyclic graph and two vertices v and w, find the lowest common ancestor.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Explore the organization of several ADTs and the manipulation (searching, insertion, deletion, traversing) of data stored in various data structures.	Apply	1,2
2	Apply different data structures to solve a given problem.	Apply	1, 3, 4
3	Analyze the efficiency of using different data structures and choose the efficient data structure for solving a given problem.	Analyze	1, 2
4	Assess efficiency trade-offs among different data structure implementations or combinations.	Analyze	1, 2
5	Design programs using a variety of data structures, including hash tables, binary and general tree structures, search trees, heaps, graphs, and AVL trees.	Create	1, 2

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS):



TEXTBOOKS:

1. Reema Thareja, “Data Structures Using C”, 2nd Edition, Oxford University Press, 2014.
2. Seymour Lipschutz, “Data Structures with C”, 1st Edition, McGraw Hill Education, 2017.

REFERENCE BOOKS:

1. Ellis Horowitz and Sartaj Sahni, “Fundamentals of Data Structures”, illustrated edition, Computer Science Press, 2006.
2. Richard F. Gilberg and Behrouz A. Forouzan, “Data Structures: A Pseudocode Approach with C”, 2nd Edition, CENAGE Learning, 2005.
3. R G Dromey and Pearson, “How to solve it by Computer”, 2nd edition, Impression edition, 1998.

SKILLS:

- ✓ Experienced to Store data and various types of data to handle.

- ✓ Ordering and sorting of data.
- ✓ Indexing and Searching of required data from large data sequences.
- ✓ Exposed to various characteristics such as Linear or non-linear, Homogeneous or heterogeneous and Static and Dynamic.

Image:

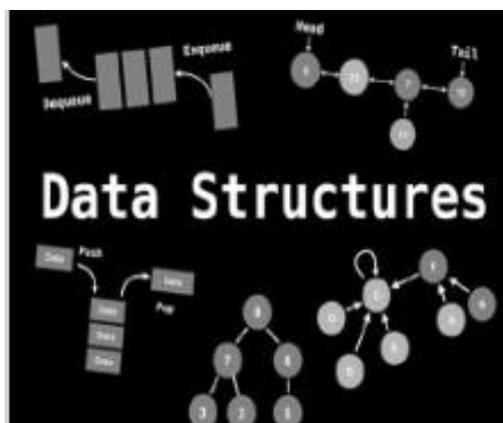


Image Source: <https://www.youtube.com/watch?v=Qmt0QwzEmh0>

22BT203 - DESIGN THINKING AND ENGINEERING ORIENTATION

Hours Per Week:

L	T	P	SL	C
0	0	2	0	1

PREREQUISITE KNOWLEDGE: Elementary Mathematics, Organic Chemistry

COURSE DESCRIPTION & OBJECTIVES:

In order to provide the student with cutting edge knowledge on the planning, development, and application of design thinking principles in project management. Design thinking in Biotechnology fosters innovative solutions by centering on user needs and real-world problems. This course drives impactful advancements in health care, agriculture and environment.

MODULE - 1

0L+0T+12P+0SL = 12 Hours

UNIT - 1

DESIGN THINKING:

Different stages of the design thinking process, need for design thinking in entrepreneurship development programs of public and private agencies (MSME, DBT, BIRAC, Start-up & Make

in India); Practical applications of design thinking in industry verticals – product, process, research, etc.

UNIT - 2

REACTOR DESIGN AND SMART BIOREACTOR SYSTEMS:

Reactor design concepts and its importance; Case studies for the design of bioreactors; Overview of smart bioreactor design

TRANSACTIONS:

- Design thinking in Bioentrepreneurship.
- Case study for design thinking with an example of a bio-product manufacturing industry.
- Smart Bioreactor Systems.

MODULE - 2

0L+0T+18P+0SL = 18 Hours

UNIT - 1

DESIGN STRATEGY AND PROTOTYPING:

Principles for designing and building a prototype; Use of computer-aided tools for visual depiction; Validation of assumptions and prototypes under simulated user conditions; Redesign and customization to suit requirements; Field survey and cost analysis.

UNIT - 2

DESIGN STRATEGIES IN LIFE SCIENCES:

Ideation techniques for designing nanomaterials and drug discovery for infectious diseases; Building molecular prototypes using computer-aided design tools.

UNIT - 3

CASE STUDIES AND EMERGING TRENDS IN BIO-DESIGN:

Case studies on successful applications of design thinking in life sciences; Emerging trends in bio-design and bioprocessing; Integration of AI and computational tools in bio-design.

TRANSACTIONS:

- Hands-on exercise on building a prototype using computer-aided design (CAD) tools.
- Simulation-based validation of prototype designs under different conditions.
- Case study on redesign and customization of a biomedical device.
- Group discussion on recent breakthroughs in bio-design and bioprocessing.
- Case analysis of AI-integrated bio-design solutions.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO. No.	Course Outcome	Bloom Level	Mapping with POs
1	Understand and Apply the stages of design thinking and its applications in entrepreneurship development	Apply	1, 2, 6, 9, 11
2	Apply design thinking principles to bio-product manufacturing and smart bioreactor systems	Apply	3, 4, 5, 10
3	Analyse the importance of reactor design concepts in biotechnology industries	Analyse	6, 7, 9, 10
4	Develop prototypes using computer-aided design tools and evaluate them under simulated conditions	Create	7, 9, 10

5	Design molecular prototypes for drug discovery and nanomaterials using ideation techniques and CAD tools	Apply	5, 6, 7
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MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs):



TEXT BOOKS:

1. Liedtka J, and Ogilvie T, “Designing for Growth: A Design Thinking Tool Kit for Managers”, Columbia University Press, 1st Edition, 2011.
2. Manglik R, “Bioreactors: Analysis and Design”, EduGorilla Publication, 1st Edition, July 2024.

REFERENCE BOOKS:

1. Cuinas I, and Fernandez Iglesias M. J, “Design Thinking for Engineering: A Practical Guide”, Institution of Engineering and Technology (IET), 1st Edition, 2023.
2. Kumar K, and Kurni M, “Design thinking: a forefront insight”, CRC Press, 1st Edition, 2022.

SKILLS

- ✓ Frame the problem based on insights gathered.
- ✓ Generate innovative solutions through brainstorming.
- ✓ Build models to explore and test ideas.
- ✓ Gather feedback to refine and improve solutions.



https://ssir.org/images/jcogs_img/cache/design-thinking-social-innovation-2010-592x333_-_abcdef_-_ec76adfb59d23efa05b4d7ecdd5601e6950c9f26.webp

22ECXXX – SIGNALS AND SYSTEMS

Hours per week:

	L	T	P	SL	C
PREREQUISITE KNOWLEDGE: Basics of Mathematics–Calculus (Limits of Continuity, Differentiation and Integration), Trigonometry and Complex Numbers.	2	2	2	2	4

COURSE DESCRIPTION AND OBJECTIVES: This course introduces the fundamentals of continuous time signals and systems useful for communication engineers. The course objectives are: To study the spectral analysis of periodic and aperiodic signals using Fourier series and Fourier Transform. To analyse continuous time Linear Time Invariant (LTI) systems through Laplace Transform and Fourier Transform. To Understand the process of converting continuous time signals to discrete time signals through the concept of Sampling. To use simulation tools for spectral analysis, for understanding the behaviour systems for various kinds of inputs.

MODULE-1

12L+12T+12P+12SL= 48 Hours

UNIT-1: CONTINUOUS TIME SIGNALS

Review Basic Math: Trigonometry, Differentiation, Integration, and Complex Number theory.

Signals: Classification of continuous time signals, Standard signals, Basic operations on signals.

UNIT-2: CONTINUOUS TIME SYSTEMS

Systems: Representation, Classification, RLC Systems and mathematical model, Linear Time Invariant (LTI) system, Causality and stability of a systems, Analysis of LTI system using Convolution integral and properties, Time domain analysis of LTI systems represented by differential equations.

PRACTICES:

- Introduction to MATLAB
- Generation of continuous time signals.
- Basic operations on the signals.
- Convolution between signals
- Time domain Analysis

MODULE-2

18L+18T+18P+18SL= 72 Hours

UNIT-1: FOURIER ANALYSIS

Fourier Series: Representation of signals using orthogonal functions, Representation of continuous time periodic signals, Trigonometric and Exponential representation, Convergence and Properties of the Fourier series, complex Fourier spectrum.

Fourier Transform: Introduction to Fourier transform, Convergence and Properties, Fourier transform for various signals, Frequency response., analysis of LTI systems. Time domain and Frequency domain aspects of ideal and non-ideal filters, conditions for physical realizability. Bandwidth and rise time relation.

UNIT-2: ANALYSIS USING LAPLACE TRANSFORM

Introduction to Laplace transform and region of convergence, Laplace Transform for various signals, Properties of the Laplace transform, Inverse Laplace transform, Analysis of LTI systems, Stability analysis, Analysis of LTI systems represented by differential equation.

UNIT-3: SAMPLING

Sampling Theorem for band limited signals, Nyquist Rate, Nyquist Interval, Graphical and analytical proof for band limited signals through Impulse sampling, Reconstruction of signal from its samples, Effect of under sampling - Aliasing.

PRACTICES:

- Transformation of signals into time and frequency domains.
- Fourier Series spectrum of periodic signals.
- Periodic signal synthesis using Fourier Series.
- Fourier transform spectrum of aperiodic signals.
- Frequency domain analysis of LTI systems.
- Pole-Zero plot and Stability analysis of a system.
- Sampling, Reconstruction and Analysis of signals.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1.	Perform various operations on continuous time signals and systems.	Apply	1, 2, 4, 5, 9, 10,
2.	Apply the concepts of convolution for continuous time LTI systems	Apply	1, 2, 5, 9, 10
3.	Analyse the continuous time signals and systems in frequency domain using Fourier series, Fourier transform and Laplace transform.	Analyze	1, 2, 3, 5, 9, 10,11
4.	Analyse Sampling rate for various continuous time signals and its effects.	Analyze	1, 2, 5, 9, 10,11
5.	Use simulation techniques for analysis of different continuous time signals and systems using modern engineering tools.	Evaluate	1, 2, 3, 4, 5, 9, 10, 11

Mapping of SDGs and IKS

Sustainable Development Goals (SDGs)

SDG 9 (Industry, Innovation, and Infrastructure)

SDG 11 (Sustainable Cities & Communities)

Indian Knowledge System

No

TEXT BOOKS:

1. B.P. Lathi and Roger Green, "Linear Systems and Signals," Oxford University Press, 3rd edition, 2022.
2. Alan V. Oppenheim, Alan S. Willsky, and S. Hamid Nawab, "Signals and Systems", 2nd edition, Pearson, 2015.

REFERENCEBOOKS:

1. Simon Haykin, Barry Van Veen, "Signals and Systems", 2nd edition, Wiley, 2007.
2. Hwei P. Hsu, "Schaum's Outline of Signals and Systems", McGraw-Hill Education, 4th edition, 2020.
3. Luis F. Chaparro and Aydin Akan, "Signals and Systems using Matlab", Academic Press, 3rd edition, 2019.
4. Taan S. Elali, "Continuous Signals and Systems with Matlab", CRC Press, 3rd edition, 2021

SKILLS:

- Design and Test a LTI system.
- Design and test a stable system.
- Choose the various transforms and their applications in the analysis of signals and systems.
- Choose the desired sampling frequency for a given application like a speech, audio video, and communication.
- Apply transformation to real-world problems involving Bio-signals

Image source: ChatGPT Generated Image

Image file name: SIGNALS AND SYSTEMS



22EN301 – SOFT SKILLS LABORATORY

Hours per week:

L	T	P	SL	C
0	0	2	0	1

PREREQUISITE KNOWLEDGE:

Basics of personality traits and qualities of a good human being and motivation for self-improvement.

COURSE DESCRIPTION AND OBJECTIVES:

This course is designed to equip undergraduate engineering students with essential soft skills that are critical for success in both academic and professional settings. The course will provide a comprehensive foundation in key soft skills such as personality development, communication, teamwork and leadership, time management, and getting ready to industry to face different kinds of interviews and develop strategies to win the interviews. Through a combination of theoretical learning and practical exercises, students will enhance their ability to interact effectively with peers, professors, and professionals like interview board members in a variety of settings. Emphasis will be placed on real-world applications, helping students build confidence and develop the interpersonal skills necessary for effective collaboration, innovation, and career advancement. This course will help the students, to develop interpersonal and intrapersonal skills, analyze and improve their personality traits. In addition to the above, the learners to be aware of the needs of the industry to focus on preparing for job placement/ industry ready.

MODULE-1

0L +0T+12P-0SL=12 Hours

UNIT-1

PERSONALITY DEVELOPMENT-1:

Analyzing self for personality development through Strengths, Weaknesses, Opportunities and Threats or Challenges. *Atma-Vichara* (self-inquiry)

Creating self-awareness through Open Arena, Blind spots, Facade and Unknown areas of individual (*Jagrat, Swapna, Sushupti, Turiya and the importance of Atma-Bodha.*)

The importance of team building skills and various skills required to build a team along with examples (*Panchatantra and Mahabharata*)

UNIT-2

PERSONALITY DEVELOPMENT-2:

Importance of goal setting, Edwin Locke's theory of goal setting, setting goals, SMART technique for goal setting, dividing goals. *Purusharthas (Dharma, Artha, Kama, Moksha)*

Need for the stress management, ways to manage stress, stress management skills and techniques, Stress management strategies.

(*Dhyana* meditation and *Pranayama* for holistic well-being and emotional balance)

Major themes of time management, benefits of time management, effective time management, POSEC method, Covey's Time management. *Dinacharya and Ritucharya*

PRACTICES:

- SWOT analysis
- Johari window
- Team building skills
- Goal setting
- Stress management
- Time management

MODULE-2**0L +0T+18P-0SL=18 Hours****UNIT-1****GETTING READY TO INDUSTRY:**

Industry needs: dress sense, appearance, creating an image, image management and etiquettes at work place.

Samskaras (refinement), ancient concepts of *Aachara* (right conduct), and *Sadvritta* (ideal behavior)

Various language functions, expressions and usage: informal, semi-formal and formal.

UNIT-2**JOB RECRUITMENT PROCESS.**

Narrating about self, academic achievements, project works, family background (if required)

Purusharthas and *Svadharmas* (personal duty or career path).

Participating group discussions, various roles in group discussion, taking turns in the discussion, expressing opinions, agreeing, disagreeing, leading using SPELT technique, consolidating the information and arriving to a conclusion.

Shastrartha, Sabha traditions of discourse.

Practicing HR questions.

UNIT-3**DOCUMENT PREPARATION TO THE NEXT LEVEL:**

Collecting the data, finding a suitable template, presenting the objectives, education qualification, projects, co and extracurricular activities, achievements, certifications, hobbies and personal information.

Presenting ambitions, aspirations, successes and persuading.

PRACTICES:

- Image management
- Essential language functions and expressions
- Self-introduction
- Group discussion
- Facing interviews
- Resume preparation
- Statement of purpose

COURSE OUTCOMES:

On successful completion of the course, the students will be able to:

CO Nos	Course Outcomes	Blooms Level	Mapping with POs
1	introspect on personal traits (for example strengths, weaknesses, known and unknown areas, hidden etc.,) and emerge as a balanced personality with improved self-awareness and self-worth.	Analyze	11
2	learn the importance of the use of formal language in their professional as well as personal areas to represent their personality by demonstrating gender sensitive language at workplace in the cross cultural environment.	Apply	9
3	Be able to prepare a resume and gain the confidence to face an interview.	Create	10
4	Possess the interpersonal skills to conduct himself/herself effectively in everyday professional and social contexts.	Apply	8
5	Be able to bring professionalism into his/her daily activities.	Apply	8

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND INDIAN KNOWLEDGE SYSTEM (IKS):



TEXT BOOKS:

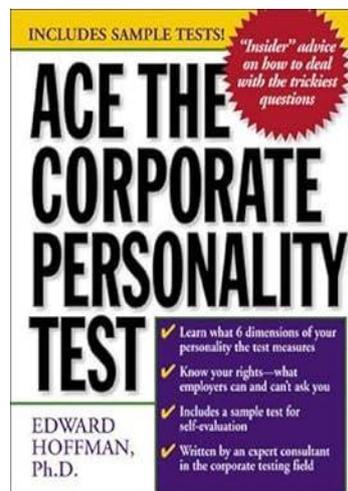
1. Edward Holffman, Ace the corporate personality, McGraw Hill, 2001.
2. Adrian Furnham, Personality and intelligence at work, Psychology Press, 2008.

REFERENCE BOOKS:

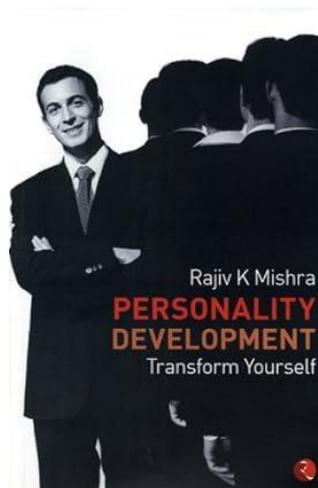
1. John Adair Kegan Page, "Leadership for innovation" 1st edition, Kogan, 2007.
2. Krishna Mohan & NP Singh, "Speaking English effectively" 1st edition, Macmillan, 2008.
3. Dr. S.P. Dhanvel, English and Soft skills, Orient Blackswan, 2011.
4. Rajiv K. Mishra, Personality Development, Rupa & Co. 2004.
 - a. <https://zety.com/blog/resume-formats> for latest resumes

SKILLS:

- ✓ Balancing social and emotional intelligence quotients through analyzing interpersonal and intrapersonal skills.
- ✓ Solving personal and professional life hiccups with confidence and maturity.
- ✓ Career planning with clear personal and professional goals.
- ✓ Preparing tailor made resume and face various job interviews with enriched personality traits.



<https://m.media-amazon.com/images/I/51Ii3X84bOL. SX342 SY445 .jpg>



<https://img.bookchor.com/images/cover/596/9788129103451.jpg>

22TP301 - QUANTITATIVE APTITUDE & LOGICAL REASONING

Hours Per Week:

L	T	P	SL	C
0	2	0	0	1

PREREQUISITE KNOWLEDGE:

Basic Logical Thinking and Problem-Solving Ability.

COURSE DESCRIPTION AND OBJECTIVES:

The "Quantitative Aptitude & Logical Reasoning" course develops students' problem-solving, analytical, and logical thinking skills through topics like arithmetic, algebra, data interpretation, and puzzles. It prepares learners for aptitude tests and decision-making scenarios, enhancing their speed, accuracy, and confidence to excel in academics, placements, and real-world challenges.

MODULE-1

0L+12T+0P+0SL=12 Hours

UNIT-1

QUANTITATIVE APTITUDE-1:

Number system, LCM & HCF of numbers, Percentage, Ratio and proportion and Partnership.

UNIT-2

QUANTITATIVE APTITUDE- 2:

Profit, loss and discount, Simple Interest & Compound interest, Data Interpretation.

PRACTICES:

- Each concept would be taught in detail in the class.
- Followed by 10 problems solved in the class.
- Timer based questions solving during class room practice.
- Students would have to solve 10 additional problems as homework assignment in each concept.

MODULE-2

0L+18T+0P+0SL=18 Hours

UNIT-1

QUANTITATIVE APTITUDE- 3:

Time and work, Time & distance, Permutation & Combinations, Probability.

UNIT-4

LOGICAL REASONING- 1:

Number series & Letter series, Analogy, Coding & decoding, Syllogisms, Puzzle test.

UNIT-5

LOGICAL REASONING- 2:

Blood relations, Direction sense test, Order & Ranking, Seating Arrangements, Calendar & Clocks.

PRACTICES:

- Each concept would be taught in detail in the class.
- Followed by 10 problems solved in the class.
- Timer based questions solving during class room practice.
- Students would have to solve 10 additional problems as homework assignment in each concept.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1	Develop the ability to solve arithmetic and reasoning problems quickly and accurately, without relying on paper-based calculations.	Apply	1, 3, 5
2	Strengthen data interpretation skills for effective analysis and decision-making.	Analyze	1, 4, 5
3	Address the evolving demands of the current job market while preparing individuals for higher studies, including exams such as the CAT, GMAT, etc.	Evaluate	2, 5, 10
4	Enhance analytical skills to evaluate logical statements, arguments, and patterns.	Evaluate	2, 6
5	Develop proficiency in solving reasoning problems like puzzles, analogies, syllogisms, and seating arrangements.	Apply	2, 6, 8

MAPPING OF SUSTAINABLE DEVELOPMENT GOALS (SDGs):**TEXT BOOKS:**

1. R. S. Aggarwal- Quantitative Aptitude for Competitive Examinations- S. Chand Publications- Edition-2023.
2. ARIHANT- A New Approach to Verbal & Non-Verbal Reasoning- Arihant Publication- Revised Edition-2021.

REFERENCE BOOKS:

1. Trishna Knowledge Systems- Quantitative Aptitude for Competitive Examinations- Pearson Publication- First Edition- 2013.
2. B.S. Sijwali & S. Sijwali- A New Approach to Reasoning- Arihant Publication- Edition- 2018.
3. R. S. Aggarwal- A Modern Approach to Verbal & Non-Verbal Reasoning- S. Chand Publication- Revised Edition- 2018.

SKILLS:

- Helps enhance problem-solving abilities.
- Improves skills in analyzing and interpreting data from graphs, charts, and tables.
- Encourages the development of critical thinking skills.
- Promotes systematic approaches to problem-solving and making sound decisions.
- Manage time efficiently while solving multiple questions in exams.

Image Source: Quantitative Aptitude & Logical Reasoning

Image file name: Quantitative Aptitude & Logical Reasoning

22ECXXX – Digital Electronics

Hours per week:

PREREQUISITE KNOWLEDGE: Number systems.

L	T	P	SL	C
2	2	2	2	4

COURSE DESCRIPTION AND OBJECTIVES:

This course covers number systems, logic gates, Boolean algebra, and simplifications using SOP & POS forms. It explores K-map minimization, prime implicants, and combinational circuit design, including adders, multiplexers, and decoders. Sequential circuits, flip-flops, shift registers, and counters like mod-n and ring counters are introduced. Finally, it covers finite state machines, state diagrams, and applications like sequence detectors and traffic light control.

MODULE-1

12L+12T+12P+18SL=54 Hours

UNIT-1: BASICS OF LOGIC FUNCTIONS AND SWITCHING ALGEBRA

Review of Number systems, integer and floating point numbers, Compliments, Binary Codes, Logic gates.

Switching Algebra: Boolean algebra, Canonical and Standard Forms – SOP & POS forms, algebraic simplifications and realization using basic and Universal gates.

UNIT-2: MINIMIZATION OF SWITCHING FUNCTIONS AND LOGIC DESIGN

Minimization of Switching Functions : Simplification of switching functions with Karnaugh Map of 3,4 5 variables for both min and max terms, Don't care conditions, Limitations of K-map, AOI and OAI implementations, prime implicants, Essential prime implicants.

logic design: Design with gates-procedure and examples, Adders - Half adder, Full Adder, Parallel binary adder, Subtractor - Half Subtractor, Full subtractor, Parallel Adder/Subtractor

PRACTICES:

- Logic gates
- 1-bit Adders and Subtractors
- Parallel binary adder
- Carry Look ahead adder
- Parallel Adder/Subtractor
- Design of any practical case study

MODULE-2

18L+18T+18P+27SL=81 Hours

UNIT-1: COMBINATIONAL LOGIC DESIGN

Multiplexer, Logic implementation using Multiplexer, Demultiplexer, Decoder, Logic implementation using Decoder, Encoder, limitations of encoder, Priority encoder, Code converters, Magnitude Comparator, Applications like parity generator/checker, Seven Segment LED Display etc.

UNIT-2: SEQUENTIAL LOGIC DESIGN -I

Basics: Classification of sequential circuits

Latches and Flip Flops: Latches and flipflops – SR,D,JK,T, Triggering types and circuits, Master-slave flip-flop, Flip flop conversions.

Registers- Shift registers - SISO, SIPO, PISO, PIPO, Bidirectional shift register, Universal shift register

Counters- Design of Asynchronous and Synchronous Counters, mod – n counters, random counters, Ring Counter, Johnson Counter.

UNIT-3: SEQUENTIAL LOGIC DESIGN -II

Finite State Machines: Mealy and Moore model, State diagram, State table, State assignment, design synchronous sequential circuits, Examples like Sequence detector and traffic light control system

PRACTICES:

- Multiplexer & Demultiplexer
- Encoder & Decoder
- Code Converter
- Magnitude Comparator
- Parity generator/checker
- Flip flops
- Registers
- Counters
- Sequence Detector
- Design of any practical case study

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mappingwith POs
1	Apply knowledge of Boolean algebra and logic gates to design and simplify digital circuits.	Understand	1	1,2,3, 9,10
2	Apply minimization techniques to optimize switching functions.	Apply	1	1,2,3, 9,10
3	Design combinational circuits like adders, multiplexers, and decoders etc., for practical applications.	Apply	2	1,2,3,4,5, 6,7, 9,10
4	Develop sequential circuits using flip-flops, shift registers, and counters etc., for various digital systems.	Apply	2	1,2,3,4,5, 6,7, 9,10
5	Design finite state machine models to solve real-world problems like sequence detection and traffic control.	Apply	2	1,2,3,4,5, 6, 7, 9,10

SDGs

- SDG 7 (Affordable and Clean Energy)
- SDG 8 (Decent Work and Economic Growth)
- SDG 9 (Industry, Innovation, and Infrastructure)
- SDG 11(Sustainable Cities and Communities)

IKS

TEXT BOOKS:

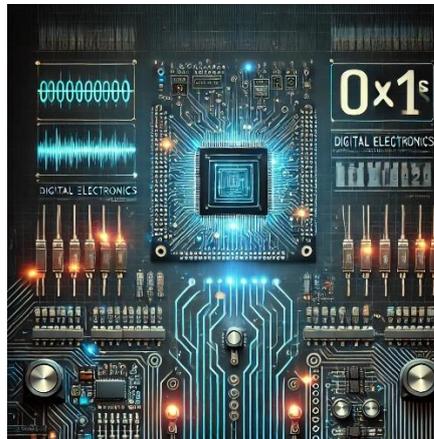
1. M. Morris Mano, "Digital Design", 6th Edition, Pearson Education, 2018.
2. ZviKohavi, Niraj K. Jha, "Switching and Finite Automata Theory", 3rd Edition, Cambridge University Press, 2009.

REFERENCE BOOKS:

1. John.M Yarbrough, "Digital Logic Applications and Design", Thomson Learning, 2006.
2. Charles H.Roth. "Fundamentals of Logic Design", 6th Edition, Thomson Learning, 2013.
3. Donald P.Leach and Albert Paul Malvino, "Digital Principles and Applications", 6th Edition, TMH, 2006.

SKILLS:

- *Apply Boolean algebra techniques to simplify expressions*
- *Design efficient combinational digital circuits using gates, multiplexers, and decoders etc.*
- *Design efficient sequential digital circuits using flip flop.*
- *Implement and analyze finite state machines, shift registers, and counters to develop solutions for various digital applications.*



Hours per week:

PREREQUISITE KNOWLEDGE: Knowledge on Algebra, calculus, and vectors. L T P SL C
3 2 0 3 4

COURSE DESCRIPTION AND OBJECTIVES:

The basic objective of this course is to introduce the fundamental theory and mathematics for the analysis of electrical circuits, frequency response and transfer function of circuits. The students will be able extend these fundamental principles into a way of thinking for problem solving in mathematics, science, and engineering

MODULE-1

18L+12T+0P+18SL=48 Hours

UNIT-1: INTRODUCTION TO CIRCUIT ELEMENTS

Source transformation, Voltage and current division, V-I characteristics of passive elements and their series / parallel combination, Energy stored in Inductors and capacitors, Kirchhoff's voltage law and Kirchhoff's current law, Mesh and nodal analysis, Star and delta conversions.

UNIT-2: NETWORK THEOREMS:

Superposition theorem, Thevenin theorem, Norton theorem, Maximum power transfer theorem, Reciprocity theorem, Compensation theorem, Analysis with dependent and independent current and voltage sources.

PRACTICES:

- Apply KVL and KCL
- Analyze different networks with dependent and independent sources
- Apply Mesh and Nodal analysis
- Analysis of different electrical circuits using theorems

MODULE-2

27L+18T+0P+27SL=72 Hours

UNIT-1: TRANSIENT ANALYSIS:

Solution of first and second order differential equations for Series and parallel R-L, R-C, R-L-C circuits, initial and final conditions in network elements, forced and free response, time constants, steady state and transient state response with DC excitation.

UNIT-2: TWO PORT NETWORKS:

Two Port Networks, terminal pairs, relationship of two port variables, impedance parameters, admittance parameters, transmission parameters and hybrid parameters, interconnections of two port networks.

UNIT-3: SINUSOIDAL STEADY STATE ANALYSIS:

Representation of sine function as rotating phasor, phasor diagrams, impedances and admittances, AC circuit analysis, effective or RMS values, average power and complex power. Resonance-Series and parallel resonance circuits, Concept of bandwidth and Q-factor.

PRACTICES:

- Transient response of RL, RC, RLC with different inputs
- Two port network parameters and inter relation
- Solving different two-port networks using Z, Y and ABCD parameters
- Find the response of the network for sinusoidal excitation

- Series RLC network
- Parallel RLC network

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1.	Apply Kirchhoff's laws and theorems to linear circuits.	Apply	1, 2, 4, 5, 8, 9, 11
2.	Analyze current and voltage behavior for the given circuit under transient conditions.	Apply	1, 2, 3, 5, 8, 9
3.	Analyze the given network using specified two port network parameter like Z or Y or T or h.	Analyze	1, 2, 3, 5, 8, 9
4.	Analyze the steady state response of RL, RC and RLC circuits and resonance.	Evaluate	1, 2, 3, 4, 5, 8, 9, 11

Mapping of SDGs and IKS

Sustainable Development Goals (SDGs)

SDG 9 (Industry, Innovation, and Infrastructure)

SDG 11 (Sustainable Cities & Communities)

TEXT BOOKS:

1. M. E. Van Valkenburg and TS Rathore "Network analysis", Prentice India Education Services Pvt.Ltd, 3rd edition, 2019.
2. A Sudhakar and Shyammmohan S Palli, "Circuits & Networks: Analysis and Synthesis", 5th edition, Tata McGraw-Hill,2019.

REFERENCEBOOKS:

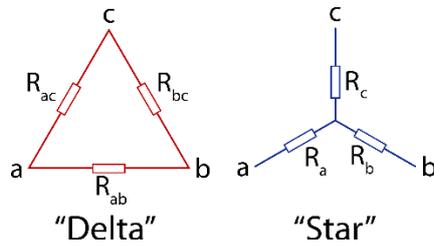
1. William H. Hayt, Jack E. Kemmerly and Steven M. Durbin, "Engineering Circuit Analysis", 7th edition, Tata McGraw-Hill,2007.
2. Franklin F.Kuo, "Network Analysis and Synthesis", 2nd Edition, John Wiley and Sons, 2003.
3. A Chakrabarthy, Electric Circuits, Dhanpat Rai & Sons, 6th Edition, 2010.
4. Mahmood Nahvi and Joseph Edminister, "Electric Circuits", 4th edition, Schaum's Outline series, Tata McGraw-Hill, 2004.

SKILLS:

- Understand different components and their characteristics.
- Able to analyze/ find responses using theorems.
- The behavior of RL/RC/RLC can be evaluated for different inputs.
- Able to analyze regulated power supply.

Image source: [https:// en.m.wikipedia. org/wiki/ File:Delta-Star_ Transformation.](https://en.m.wikipedia.org/wiki/File:Delta-Star_Transformation.svg)
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22EEXXX - ELECTRONIC DEVICES AND CIRCUITS

Hours per Week:

PREREQUISITE KNOWLEDGE:

- Semiconductor Physics
- Network Theory

L	T	P	SL	C
3	0	2	3	4

COURSE DESCRIPTION AND OBJECTIVES:

This course focuses on the design and analysis of various semiconductor devices, the basic principle of BJT and MOSFET amplifiers using suitable biasing techniques and to perform ac analysis. The operation and design of various power amplifier circuits, differential amplifier circuits, multistage amplifiers, tuned amplifiers and analyze its frequency response. Students will gain hands-on experience in analyzing and designing electronic circuits, understanding their behavior, and applying them to real-world problems.

MODULE-1

18L+0T+12P+18SL=48 Hours

UNIT-I: BIPOLAR JUNCTION TRANSISTOR

BJT Device structure and physical operation, Current-voltage relationship -CB,CE,and CC configuration -nonideal effects-Base width modulation-Ebers-Moll Model. Small Signal Model, Device Capacitance-Equivalent circuit model

UNIT-2: FIELD EFFECT TRANSISTOR

JFET, MOS Capacitors, Energy-band Diagram, flat-band, accumulation, depletion, inversion, Threshold voltage, capacitance-voltages characteristics. MOSFETS: Current-Voltage Characteristics, Velocity Saturation, Leakage currents, short channel effects- V_t roll-off and drain Induced barrier lowering, scaling limits

PRACTICES:

- Common Emitter Characteristics
- Common Base Characteristics
- BJT as a Switch
- JFET Characteristics
- MOSFET Characteristics

MODULE-2

27L+0T+18P+27SL=72 HOURS

UNIT-1: SINGLE AND MULTISTAGE AMPLIFIERS

Amplifier design and Analysis of CE, CC, CB, CE-CE, CE-CB, CE-CC, Darlington (CC-CC) amplifiers. Analysis of CS, CD, CG, CS-CS, CS-CG, CS-CD, Darlington (CD-CD) amplifiers.

UNIT-2: TUNED AMPLIFIERS

Introduction, Q-Factor, small signal tuned amplifier, characteristics of tuned amplifiers –single tuned and double tuned amplifier, stagger tuned amplifier and gain BW product

UNIT-3: POWER AMPLIFIERS

Operation and analysis of class A Power amplifier, Class B amplifier, push-pull amplifier and complementary symmetry power amplifier, Class AB power amplifier, class C amplifiers, and Class D amplifiers. Thermal stability and Heat sinks.

PRACTICES:

- Design and analysis of single stage amplifiers
- Design and analysis of multistage amplifiers
- Design and analysis of tuned amplifiers
- Design and analysis of power amplifiers.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Design stable biasing circuits for BJT/MOSFET	Understand	1	1, 2, 3,4, 5,6,9, 10,11
2	Design the BJT and MOSFET amplifier circuits using suitable biasing techniques and analyze their frequency response characteristics.	Apply	1,2	1, 2, 3,4, 5,6,9, 10
3	Design and analysis of single and multistage amplifiers	Apply	2	1, 2, 3,4, 5,6,9, 10
4	Analyse various tuned and power amplifiers	Analyse	2	1, 2, 3,4, 5,6,9, 10

SDGs

SDG 7 (Affordable and Clean Energy)
SDG 9 (Industry, Innovation, and Infrastructure)
SDG 12 Responsible Consumption and Production

IKS

BOOKS AND REFERENCES

TEXT BOOK:

1. Millman and C.Halkias, Electronic Devices and Circuits, Tata McGraw Hill.,2010.

REFERENCES:

1. Boylestad & Nashelsky, Electronic Devices & Circuit Theory, 11th edition, Prentice Hall Of India (P) Ltd., 2013.
2. Adel S. Sedra. Kenneth C. Smith and Arun N. Chandorkar, "Micro Electronic Circuits: Theory and Applications", 7th edition, Oxford University Press, 2017.
3. M.H. Rashid, "Micro Electronic Circuits: Analysis and Design", 1st edition, Thomson PWS Publications, 1999.
4. Donald A. Neamen, Electronic Circuit Analysis and Design, 3e, Tata McGraw Hill, 2008

SKILLS:

- Developing the ability to systematically analyze existing circuits and creatively design new ones to meet specific functional requirements.
- Understanding the fundamental physics of MOSFET operation, including the formation of inversion layers and channel conductivity
- Gaining a comprehensive understanding of electronic component characteristics and developing the skill to select and apply them effectively
- Designing MOSFET-based switching circuits for power control and signal switching.

22ECXXX COMPUTER ARCHITECTURE AND ORGANIZATION

Hours per week:4

PREREQUISITE KNOWLEDGE: Basics of Computers, Digital Electronics.

L	T	P	SL	C
2	2	2	2	4

COURSE DESCRIPTION AND OBJECTIVES:

This course covers fundamental and advanced concepts of computer architecture, including instruction set design, CPU organization, memory hierarchy, I/O systems, and touches modern computing paradigms like parallel and quantum computing. The aim is to get an insight about the functioning of computers and evaluate their performance metrics.

MODULE-1

12L+12T+12P+12SL=48 Hours

UNIT-1: STRUCTURE OF COMPUTERS

Introduction: History of computers; Von-Neumann, Harvard, Super Harvard architectures, Computer components, Computer Function.

Instruction Set Architecture (ISA): The Evolution of the Intel x86 Architecture, ARM Architecture, CISC Vs RISC; Designing for performance.

UNIT-2: COMPUTER ARITHMETIC AND CPU

Computer Arithmetic: Integer representation, Integer arithmetic, Floating-point representation, IEEE Standard 754, Floating-point arithmetic.

Instruction Sets: Address format, Instruction format, Types of operands, Intel x86 and ARM data types, Types of operations, and Addressing modes.

CPU Implementation: Processor organization, Register organization, Stack organization, Hardwired logic, Micro programmed logic.

PRACTICES:

- Arithmetic and Logic Micro-Operations.
- Integer arithmetic.
- Single precision representation in IEEE Standard 754.
- Floating point arithmetic.
- Instruction sets and addressing modes of 8086.

MODULE-2

18L+18T+18P+18SL=72 Hours

UNIT-1: MEMORY ORGANIZATION

Memory: Internal memory - RAM, ROM; External memory - Magnetic disk, RAID, Cache memory, Mapping techniques.

UNIT-2: I/O ORGANIZATION AND MULTIPROCESSORS

Input/Output: Memory-mapped I/O, Isolated I/O, Programmed I/O, Interrupt driven I/O, DMA. Pipeline: Arithmetic pipeline, Instruction pipeline, RISC pipeline, Multiprocessors: Characteristics of multiprocessors, Interconnection structures.

UNIT-3: CONTROLLERS

Overview of ARM architecture, Features and versions of ARM processors, Introduction to ARM Cortex-M series, Instruction set: Data movement, arithmetic, logic, program flow.

Features and architecture of STM32 microcontrollers, Memory Organization and Peripherals in STM32.

PRACTICES:

- Memory interface with 8086.
- Mapping techniques.
- Cache performance.

- I/O communication.
- IN/OUT instructions of 8086.
- Interfacing of 8086 with 8225.
- Flynn’s taxonomy.
- Introduction to Visio/edraw/Verilog.
- Introduction to Keil uVision 4 software.
- 8-bit, 16-bit, 32 bit Arithmetic and Logical operations.
- Searching a number, Find and replace the number in a given array.
- Find the smallest/largest number, Arrange the given numbers in sorting order.
- Block transfer using load/store instructions.
- Blinking of LEDs in port 0 or port 1 in LPC2148.
- Read the input from one port and display into output port using LPC2148.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs	Relevant SDGs
1.	Explain the fundamental structures of computers, including Von-Neumann and Harvard architectures.	Remember, Understand	1, 2	4
2.	Analyze and compare instruction set architectures (CISC, RISC) and their impact on processor performance.	Understand, Analyze	2, 3	9
3.	Apply concepts of computer arithmetic and CPU organization to design and evaluate processor functionality.	Analyze, Evaluate	3, 5	8
4.	Examine memory organization techniques, including cache mapping, RAM, ROM, and RAID storage.	Understand, Apply	2, 4	12
5.	Investigate I/O mechanisms, pipeline processing, and multiprocessor architectures for performance optimization.	Analyze, Apply	4, 6	9
6.	Explore ARM-based microcontroller architectures, including STM32, for embedded system applications.	Understand, Evaluate	5, 7	11

TEXT BOOKS:

1. William Stallings, “Computer Organization & Architecture: Designing for Performance”, 11th Edition, Pearson, 2019.
2. Steve Furber, “ARM System on Chip Architecture”, 2nd edition, Pearson education, 2014.

REFERENCEBOOKS:

1. Linda Null, “Essentials of Computer Organization and Architecture”, Jones & Bartlett Publishers, 6th Edition, 2024.
2. Sajjan G. Shiva, “Computer Organization, Design, and Architecture”, 5th Edition, CRC Press, Taylor & Francis, 2014.

3. Jim Ledin, "Modern Computer Architecture and Organization", 2nd edition, Packt Publishing, 2022.
4. William Hohe and Christopher Hinds, "ARM Assembly Language: Fundamentals and Techniques", 2nd edition, CRC Press, 2015.
5. "LPC214x User Manual (UM10139)", Volume 1, Philips Semiconductors, 2015.
(<https://www.nxp.com/docs/en/user-guide/UM10139.pdf>)

SKILLS:

- Grasp computer architecture concepts, instruction set design, and system components like ALU, registers, and control units.
- Analyze memory hierarchy, cache mapping, virtual memory, I/O architectures, and system performance.
- Compare von Neumann vs. non-von Neumann models, CISC vs. RISC architectures, and study instruction execution cycles.
- Explore Flynn's Taxonomy, multiprocessor architectures, parallel computing models, and real-world applications.
- Develop parallel processing programs, analyze performance efficiency, and understand future trends like quantum computing, and neuromorphic computing.
- Identify suitable hardware components for a specific application.
- Design a microcontroller-based system using LPC 2148.
- Develop the environment for interfacing peripherals with ARM processors.
- Develop Embedded-C or Assembly language programs using LPC 2148.

22ECXXX – FPGA BASED SYSTEM DESIGN

Hours per week:

L	T	P	SL	C
2	2	2	2	4

PREREQUISITE KNOWLEDGE: Digital Electronics.

COURSE DESCRIPTION AND OBJECTIVES:

This course covers the advanced design and analysis of digital circuits with HDL. The primary goal is to provide in depth understanding of system design. The course enables students to

apply their knowledge for the design of advanced digital hardware systems with help of FPGA tools.

MODULE-1

12L+12T+12P+12SL=48 Hours

UNIT-1: OVERVIEW OF FPGA ARCHITECTURES AND TECHNOLOGIES

Introduction to programmable logic devices- PAL, PLA, PLD, CPLD, FPGA

The role of FPGA in digital design, FPGA types, FPGA Vs Custom VLSI, FPGA Architectures, SRAM based FPGAs, Antifuse based FPGAs, EPROM based FPGAs, case study of any one FPGA board.

UNIT-2: VERILOG HDL CODING STYLES -1

Verilog HDL: Emergence of HDLs, importance of HDLs, Design flow, Hierarchical Modeling Concepts, Lexical conventions, Ports and modules, data types, System tasks and Compiler directives,

Gate level modelling – Gate types and primitives, gate delays, User defined primitives, Examples.

PRACTICES:

- Logic gates
- Adder, Subtractor
- Multiplexer, Demultiplexer
- Encoder, Decoder
- Magnitude Comparator
- Flip flops

MODULE-2

18L+18T+18P+18SL=72 Hours

UNIT-1: VERILOG HDL CODING STYLES -2

Data flow modelling style - Continuous assignments, Operators, Delays structures, Examples

switch level modelling style – MOS Switches, CMOS switches, Bi-directional switches, Resistive switches, Delay specification on switches, examples.

UNIT-2: VERILOG HDL CODING STYLES -3

Behavioral level Modeling style: Structural procedures, procedural constructs, Timing controls, conditional statements, multiway branching, loops, sequential and parallel blocks, generate blocks, examples, tasks and functions, procedural continuous assignments.

UNIT-3: MODELING AND SYNTHESIS

Modeling: Behavioral, Data flow and structural realization – Adders, Multipliers, Flip-Flops, Shift registers, Synchronous and asynchronous counters, Pseudo random LFSR, sequence detector FSM.

Logic Synthesis with Verilog HDL: Introduction and impact of logic synthesis, Verilog HDL synthesis, synthesis design flow, an example of RTL to Gates.

PRACTICES:

- Code converter
- Serial adders/Parallel adders
- Flipflops
- Shift registers

- Counters
- Sequence detector

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mappingwith POs
1	Understand the fundamentals of FPGA architectures, programmable logic devices, and their role in digital design.	Understand	1	1,2,3, 9,10
2	Explore the fundamentals of Verilog HDL, including its emergence, significance, design flow, and key constructs for digital circuit modeling.	Understand	1	1,2,3,5, 9,10
3	Develop Verilog HDL models using gate-level, data flow, switch-level, and behavioral modeling techniques.	Apply	2	1,2,3,4,5, 6,7, 9,10
4	Design combinational and sequential circuits such as adders, multiplexers, flip-flops, and counters etc., using Verilog HDL.	Apply	2	1,2,3,4,5, 6,7, 9,10
5	Synthesize the FSM-based digital systems, including sequence detectors and pseudo-random LFSRs etc., for practical applications.	Apply	2	1,2,3,4,5, 6, 7, 9,10

SDGs

- SDG 8 (Decent Work and Economic Growth)
- SDG 9 (Industry, Innovation, and Infrastructure)
- SDG 11(Sustainable Cities and Communities)
- SDG 12 (Responsible Consumption and Production)

IKS

TEXT BOOKS:

1. Stephen Brown & ZvonkoVranesic, "Digital Logic Design with Verilog HDL" TATA McGraw Hill Ltd. 2nd Edition 2007.
2. Samir Palnitkar, "Verilog HDL: A Guide to Digital Design and Synthesis" Prentice Hall, Second Edition, 2003.
3. Wayne Wolf, "FPGA Based System Design", PTR Prentice Hall, 2004.

REFERENCES BOOKS:

1. T.R. Padmanabhan, B.Bala Tripura Sundari, "Design through Verilog HDL" Wiley Interscience, 2004.
2. S. Ramachandran, "Digital VLSI System Design: A Design Manual for implementation of Projects on FPGAs and ASICs Using Verilog" Springer Publication, 2007.
3. Clive Maxfield, "The Design Warriors's Guide to FPGAs", Elsevier, 2004.
4. Peter Ashenden, "Digital Design using Verilog", Elsevier, 2007.

SKILLS:

- Implementing digital circuits using different modeling styles using Verilog HDL Coding.
- Designing combinational and sequential circuits on FPGA.
- Simulation & Debugging can be done using EDA tools for testing and optimization.

22EC3XX – CONTROL SYSTEMS

Hours per week:

PREREQUISITE KNOWLEDGE: Basics of circuit theory, differentiation, complex numbers and Laplace transform.

L	T	P	SL	C
2	2	0	2	3

COURSE DESCRIPTION AND OBJECTIVES:

This course focuses on how to obtain mathematical model of any physical system. To be able to do time-domain and frequency-domain analyses of the model to predict the system's time response, frequency response and stability and to design control systems to meet the given stability specifications.

MODULE-1

12L+12T+0P+12SL=36 Hours

UNIT-1: MATHEMATICAL MODELING OF CONTROL SYSTEMS

Motivation, Concept of control systems, classification of control systems, Transfer function, block diagram and signal flow graph representation of electrical systems, basic idea of feedback control systems, block diagram algebra and Mason's gain formula to obtain overall transfer function.

UNIT-2: TIME RESPONSE ANALYSIS AND CONTROLLERS

Time response analysis for first and second order systems, transient and steady state response, time domain specifications: rise time, peak time, peak overshoot, settling time, steady state error. Effect of Proportional, Proportional and Integral, Proportional and Derivative, Proportional Integral and Derivative controllers.

PRACTICE:

- Determine systems that can be modeled by Ordinary Differential Equations (ODEs)
- Obtaining overall transfer function for given electric circuits, block diagrams and signal flow graphs.
- Analyze time domain specifications to understand system behavior.
- Calculate Steady state error of a system for given input.
- Analyzing which controller is suitable to meet the given specifications.

MODULE-2

18L+18T+0P+18SL=54 Hours

UNIT-1: STABILITY ANALYSIS

Routh-Hurwitz test to find stability, Limitations of Routh-Hurwitz stability criterion, root-locus technique, steps in obtaining a root-locus, Stability analysis using Root locus, Effect of adding poles and zeros on stability using root locus.

UNIT-2: FREQUENCY DOMAIN STABILITY ANALYSIS AND COMPENSATORS

Bode plots, Stability analysis using Bode plots, polar plot, Nyquist stability criterion. Effect of Lead, Lag, Lead-Lag compensators.

UNIT-3: STATE SPACE ANALYSIS OF LINEAR TIME INVARIANT SYSTEM

Concepts of state - state variables and state model - state space representation of transfer function - diagonalization using linear transformation - solving the time invariant state equations - State Transition Matrix and its properties- concepts of controllability and observability.

PRACTICE:

- Analyzing which compensator is suitable to meet the given specifications.
- Determine the closed loop system's stability using R-H criterion.
- Stability analysis with the help of root locus.
- Stability analysis with the help of Bode plots.
- Stability analysis with the help of Nyquist stability criteria.
- Represent physical systems as state models and determine the response.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
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1.	Obtain the overall transfer function of a given system	Apply	1, 2, 8,9
2.	Analyze the importance of controllers and compensators to improve the system's performance	Analyze	1, 2, 8, 9
3.	Analyze the time response of a given system	Analyze	1, 2, 4, 8, 9
4.	Analyze the stability of a given system	Analyze	1, 2, 4, 8, 9
5	Represent physical systems as state models and determine the response.	Analyze	1, 2, 4, 8, 9

Mapping of SDGs and IKS

Sustainable Development Goals (SDGs)

Indian Knowledge Systems

SDG 9 (Industry, Innovation, and Infrastructure)

SDG 11 (Sustainable Cities & Communities)

SDG 12 (Responsible Consumption and Production)

NO

SDG 13 (Climate Action)

TEXT BOOKS:

- J. Nagrath and M. Gopal, "Control Systems Engineering" , 7th edition, New Age International

REFERENCEBOOKS:

- Benjamin C Kuo and Farid Golnaraghi, "Automatic Control systems", 9th edition, Prentice Hall
- Katsuhiko Ogata, "Modern Control Engineering", 5th edition, Prentice Hall of India Private Ltd, New Delhi, 2020.

SKILLS:

- Model the given electrical and electronic circuits with equations, block diagrams and signal flow graphs.
- Obtain over all transfer function of any given block diagram and signal flow graph.
- Analyze the controllers and compensators for given specifications.
- Analyze the transient and steady state response of a given system.
- Analyze the stability of a system with different tools like RH criterion, Root locus, Bode plots and Nyquist plots.

Image source:

https://www.tutorialspoint.com/control_systems/control_systems_introduction.htm

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22ECXXX– ELECTROMAGNETIC WAVES AND TRANSMISSION LINES

Hours per week:

PREREQUISITE KNOWLEDGE: Basics Physics, Multivariable calculus and vector analysis	L	T	P	SL	C
	2	2	2	1	4

COURSE DESCRIPTION AND OBJECTIVES:

This course offers the fundamental knowledge of electromagnetic fields involving in various engineering applications. It gives the foundation in electromagnetic waves and Transmission lines and its use in modern communication areas such as wired and wireless. The objective of the course is to enable the student familiarize with the propagation, reflection, and transmission of plane waves in bounded and unbounded media, transmission lines and waveguides.

MODULE-1

12L+12T+0P+12SL=36 Hours

UNIT-1: ELECTROSTATIC, MAGNETOSTATIC FIELDS AND MAXWELL'S EQUATIONS

Review of coordinate systems and vector analysis.

Electrostatic Fields: Coulomb's law, Gauss's law, Boundary conditions, Poisson's and Laplace's equations.

Magnetostatic Fields: Biot-Savart law, Ampere's Circuital law, Magnetic boundary conditions, Self-inductance and mutual inductance.

Maxwell's equations: Faraday's law, Displacement current, point form and integral form, Uniform plane wave equation.

UNIT-2: WAVE EQUATIONS WAVE PROPAGATION IN DIFFERENT MEDIA

Wave equations: Helmholtz Wave Equations, Wave Equations in Free space, good dielectrics and good conductors medium, Skin depth, Wave polarization.

Wave Propagation in Different Media: Normal incidence of waves on perfect conductor and dielectric, Oblique incidence of waves on perfect conductor and dielectric, Poynting theorem and Poynting vector.

PRACTICES:

1. Generate Electromagnetic Wave using MATLAB software.
2. Verification of Maxwell equation.
3. Experiments on tracing of electric and magnetic flux lines for standard configuration
4. Calculation of wave propagation in free space and conducting medium
5. Generation of different wave polarization using HFSS/CST/ADS

MODULE-2

18L+18T+0P+18SL=54 Hours

UNIT-3: TRANSMISSION LINES

Transmission Lines : Equations of voltage and current on TX line, Propagation constant and characteristic impedance, Reflection coefficient and VSWR, Impedance transformation on loss less and low loss transmission line.

UHF lines : $\lambda/4$, $\lambda/2$, $\lambda/8$ lines, Smith Chart, Smith chart as impedance chart, smith chart as admittance chart, Problems using smith chart. Impedance matching, Quarter wave transmission line, impedance matching.

UNIT-4: PLANAR TRANSMISSION LINES

Characteristics Planar transmission lines: Introduction, Strip Lines

Micro strip Lines : Shielded Microstrip Line, Characteristic Impedance of the Microstrip Line, Effects of Finite Strip Thickness in Microstrip Lines, Attenuation in Microstrip Lines, Choosing Physical Dimensions for Microstrip Applications.

Suspended Stripline, Slotline, Coplanar Waveguide, Finline.

UNIT-4: DISTRIBUTED AND LUMPED ELEMENTS OF INTEGRATED CIRCUITS

Introduction: Capacitors , Inductors, Print Inductors Consideration, Dual-Spiral, Resistors, Terminations and Attenuators ,Resonators, Discontinuities .

PRACTICES:

1. Calibrate the Network Analyzer for Transmission line.
2. Study the characteristics of a series RC and RL Circuit.
3. Verification Scattering parameters using Smith chart.
4. Design of $\lambda/4$, $\lambda/2$, $\lambda/8$ TX lines
5. Design of Strip Lines, Mirostriplines and CPW.
6. Design of Capacitors , Inductors, Print Inductors using HFSS/ CST and ADS

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs	Mapping with SDGs
1	Analyze Maxwell's equation in different forms (differential and integral) and apply them to diverse engineering problems of electromagnetic wave propagation.	Analyze	1	1, 2, 4,5, 9, 10,11	SDG 9 (Industry, Innovation, and Infrastructure)
2	Understand the phenomena of wave propagation in different media. Illustrate the concepts of electro-magnetic wave propagation and wave characteristics.	Understand	2	1, 2,4,5, 9, 10,11	SDG 7 (Affordable and Clean Energy), SDG 9
3	Analyze the characteristics of transmission lines and solve the parameters using smith chart.	Analyze	2	1, 2,3,4,5, 9, 10, 11	SDG 9, SDG 12 (Responsible Consumption and Production)
4	Analyze the basic concept and characteristics of planar transmission lines and distributed and Lumped Elements of Integrated Circuits.	Understand the basic concept of patch antenna and	2	1, 2,3,4,5, 9, 10, 11	SDG 9, SDG 11 (Sustainable Cities and Communities)

TEXT BOOKS:

1. Matthew N.O. Sadiku, "Elements of Electromagnetics", 3rd edition, Oxford Univ. Press,2001.
2. David M. Pozar, "Microwave Engineering", 4th edition, John Wiley and Sons, 2012.
3. Maloratsky, L., 2003. Passive RF and microwave integrated circuits. Elsevier.

REFERENCEBOOKS:

1. William H. Hayt and John A. Buck, 'Engineering Electromagnetics', McGraw Hill Special Indian edition, 2014.
2. Jordan, E.C. and Balmain, K.G., 1968. Electromagnetic waves and radiating systems. Prentice-Hall.
3. Kraus and Fleish, 'Electromagnetics with Applications', McGraw Hill International Editions, Fifth Edition, 2010.
4. E.V.D. Glazier and H.R.L. Lamont, Transmission and Propagation, The Services Text Book of Radio, vol. 5, Standard Publishers Distributors, Delhi.
5. Joseph. A.Edminister, 'Schaum's Outline of Electromagnetics, Third Edition (Schaum's Outline Series), McGraw Hill, 2010.
6. S.P.Ghosh, Lipika Datta, 'Electromagnetic Field Theory', First Edition, McGraw Hill Education(India) Private Limited, 2012.
7. J.D.Kraus and Ronald J Marhefka, "Antennas and Wave propagation", 4th edition,

TMH, 2014.

8. Edward C Jordan and Keith G Balmain, "Electromagnetic Waves and Radiating Systems", 2nd edition, PHI, 2003

SKILLS:

- Study and analyse final form of Maxwell equations, the behaviour of the electric field across a boundary between a conductor and dielectric and between two different dielectrics.
- Study the time-varying fields and propagation of waves in different media.
- Analyze the transmission line impedance parameters.

22ECXXX –CMOS VLSI Design

Hours per week:

	L	T	P	SL	C
PREREQUISITE KNOWLEDGE: Electronics Components and Devices.	3	0	2	3	4

COURSE DESCRIPTION AND OBJECTIVES:

VLSI design course deals with understanding of the basic electrical properties characteristics of CMOS circuit construction and also introduce the concepts and techniques of fabrication.

MODULE-1

18L+0T+12P+18SL=48 Hours

UNIT-1: VLSI DESIGN and CMOS Processing Technology

VLSI Design flow, Design domains, hierarchy, regularity, modularity, locality, VLSI design styles, design capture tools, simulation, synthesis, physical design, testing -BIST, Introduction to the basic fabrication processes - wafer preparation, oxidation, lithography, diffusion, ion implantation, etching, metallization, Fabrication process Flow: nWell, pWell, Twin tub and Silicon on insulator process.

UNIT-2: ELECTRICAL CHARACTERISTICS OF MOS TRANSISTOR

MOS Transistor Introduction: nMOS and pMOS Transistor Operation, I_{ds} - V_{ds} Relationship, Channel Length Modulation, Transistor Parameters - Threshold Voltage, Body Effect, Transconductance, Output Conductance, Figure Of Merit. NMOS inverter, CMOS Inverter, BiCMOS Inverter.

PRACTICES:

- Characteristics of MOSFET
- nMOS inverter
- CMOS Inverter
- BiCMOS Inverter

MODULE-2

27L+0T+18P+27SL=72 Hours

UNIT-1: Digital VLSI Design

Static CMOS Logic gates: Static CMOS NAND, NOR, AND, OR, EXOR, XNOR, AOI and OAI logic gates

Alternate CMOS logic structures – Pseudo NMOS logic, dynamic CMOS logic, clocked CMOS logic, domino CMOS logic and DCVS logic, Pass transistor, Transmission gate logic, Power dissipation.

Sub system Design: 1-bit adder, array multiplier, latches and flip-flops

UNIT-2: Analog VLSI design

CMOS Analog circuits: Single stage Amplifiers: Common-source stage, Source follower, Common-gate, Differential Amplifiers, current mirrors, op-amp.

UNIT-3: VLSI Circuit Design Processes

MOS Layers, Stick Diagrams, Design Rules and Layout, Transistors Layout Diagrams for NMOS and CMOS Inverters and Gates, Scaling of MOS circuits.

PRACTICES:

- Simulation of logic gates using Pseudo nMOS logic.
- Simulation of logic gates using Dynamic logic.
- Simulation of 1-bit adder.
- Simulation of flipflops.
- Simulation of CS Amplifier
- Simulation of CG Amplifier
- Simulation of CD Amplifier
- Simulation of differential Amplifier
- Simulation of current mirror
- Design of CMOS Inverter Layout

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mappingwith POs
1	Understand the VLSI design flow, design methodologies, and fabrication processes involved in semiconductor manufacturing.	Understand	1	1, 2, 3, 9, 10

2	Apply the principles of MOS transistor operation to analyze electrical characteristics such as threshold voltage, transconductance, and channel length modulation	Apply	1	1, 2, 4, 5, 9, 10
3	Analyze different CMOS combinational and sequential digital VLSI subsystems structures, including static and dynamic logics, for their power efficiency and performance in VLSI design.	Analyze	2	1, 2, 3, 4, 5, 9, 10
4	Design CMOS-based analog circuits, including amplifiers, current mirrors, and operational amplifiers, for integrated circuit applications	Apply	2	1, 2, 3, 4, 5, 6, 9, 10
5	Develop VLSI circuit layouts using stick diagrams, design rules, and transistor-level layout techniques for optimized performance and scalability.	Apply	2	1, 2, 3, 4, 5, 6, 9, 10

SDGs

- SDG 8 (Decent Work and Economic Growth)
- SDG 9 (Industry, Innovation, and Infrastructure)
- SDG 11 (Sustainable Cities and Communities)
- SDG 12 (Responsible Consumption and Production)

IKS

TEXT BOOKS:

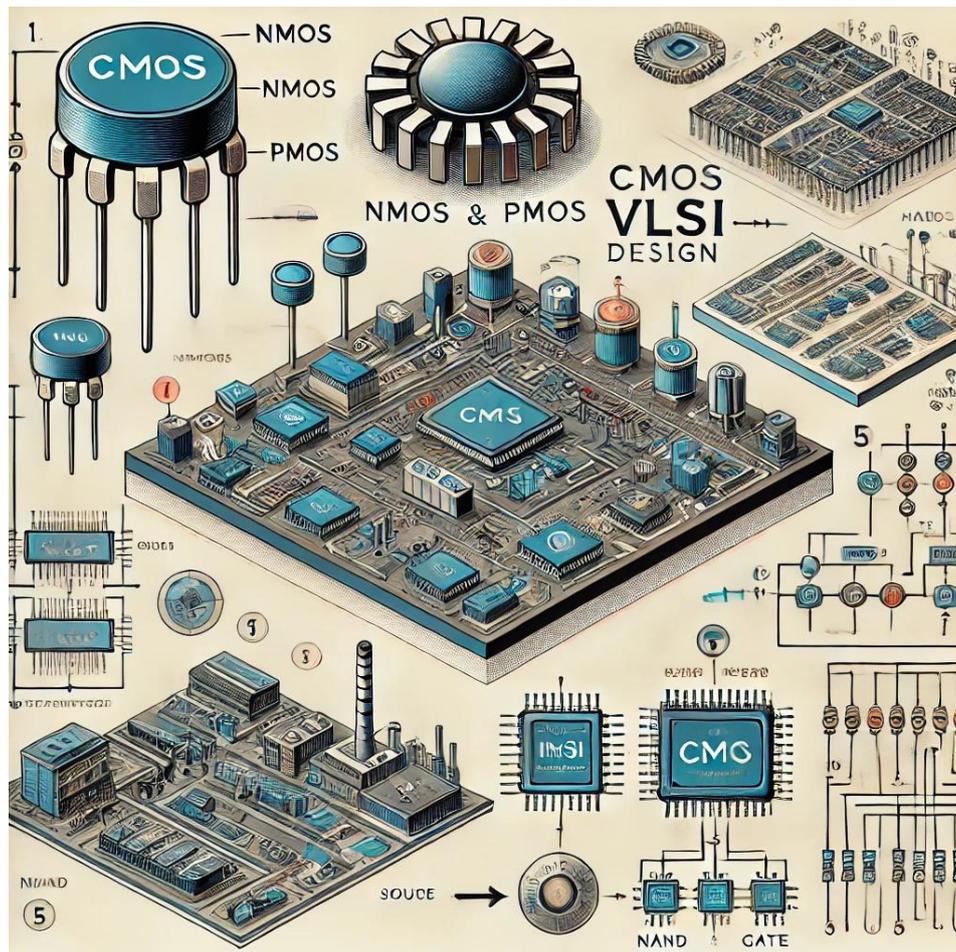
1. Neil H. Weste and Kamran Eshraghian, "Principles of CMOS VLSI Design: Systems perspective", Pearson, reprint, 4th edition, 2022
2. Douglas A Pucknell and Kamran Eshraghian, "Essentials of VLSI Circuits and systems", 3rd edition, Prentice Hall of India, 2011.
3. Behzad Razavi, Design of Analog CMOS Integrated Circuits, 2nd Edition, McGraw Hill Education, 2016.

REFERENCE BOOKS:

1. S.M. Sze, "VLSI Technology", 2nd edition, TMH, 2007.
2. Amar Mukherjee, "Introduction to nMOS and CMOS VLSI System Design", 1st edition, Prentice Hall, 1986.
3. Ajay Kumar Singh, "Digital VLSI Design", 1st edition, PHI Learning Private Limited, 2011.

SKILLS:

- Understand the VLSI Design and semiconductor manufacturing processes.
- Design efficient digital and analog circuits.
- Using EDA tools for circuit simulation, verification, and creating optimized VLSI layouts.



22EVXXX – SCRIPTING LANGUAGES

Hours per week:

PREREQUISITE KNOWLEDGE: Basic concepts of computer programming.

L	T	P	SL	C
2	0	2	2	3

COURSE DESCRIPTION AND OBJECTIVES:

This course explains the characteristics and uses of scripting languages. It also explains the way to use concepts of Perl & TCL in VLSI design.

MODULE-1

12L+0T+12P+12SL=36 Hours

UNIT-1: INTRODUCTION TO SCRIPTING LANGUAGE USING PERL

Characteristics and uses of scripting languages, Introduction to PERL, Names and values, Variables and assignment, Scalar expressions, Control structures, Built-in functions, Collections of Data, working with arrays, Lists and hashes.

UNIT-2: ADVANCED PERL

Subroutines, working with files, Navigating the file system, Type globs, Eval, References, Packages, Libraries and modules, Arrays of Arrays, Hashes of arrays, Perl in VLSI design.

PRACTICES:

- Set up a Perl development environment for practicing Perl.
- Understanding of variables, data types and loops in Perl.
- Take a string input from the user and print the reversed string in Perl.
- Take two numbers as input and perform basic arithmetic operations (addition, subtraction, multiplication, division) in Perl and TCL.
- Calculate and print the factorial of a number provided by the user in Perl & TCL.
- Take input from the user and concatenate it with a pre-defined string, then print the result in Perl & TCL.

MODULE-2

18L+0T+18P+18SL=54 Hours

UNIT-1: INTRODUCTION TO TCL

Evolution of TCL, TCL structure, Key features of TCL, Syntax, Data types, Variables, Operators, Loops, Arrays, Working with Strings, Procedures, Namespaces, Regular Expressions.

UNIT-2: ADVANCED TCL

Files and Pipes, Libraries and packages, Event-driven programs, Sockets, network programming in TCL, ‘Nuts- and-bolts’ in internet programming, Security issues, TCL in VLSI design automation, switching assignments to another VLSI project.

UNIT-3: Tk TOOLKIT FOR GUI PROGRAMMING

Introduction to Tk, Tk Widgets like button, level, entry, text, layout management pack, grid, place, Event handling, menus & dialogs.

PRACTICES:

- Write a program that takes user input and writes it to a file, then reads and displays the file contents in Perl.
- Take a list of numbers from the user, sort them in ascending or descending order, and print the sorted list in Perl.
- Write a program that accepts a string and a regular expression from the user, then finds and prints all matches in Perl.
- Write a Perl program to send an email using an SMTP server.
- Read from a file, display the contents, and write new data to a file in TCL
- Write a procedure to calculate the factorial of a given number in TCL.
- Create a simple TCP client and server that can exchange messages.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs	Relevant SDGs
1.	To identify basic Perl constructs and to outline Perl debugging commands.	Remember, Understand	1, 2	4
2.	To create and design simple Perl programs with the available Perl pre-defined functions.	Apply, Create	3, 5	9

3.	To demonstrate Perl subroutines and Perl references.	Understand, Apply	2, 4	4, 9
4.	Develop server-side scripts using Perl and TCL.	Apply, Analyze	5, 6	8, 9
5.	Create software systems using scripting languages, including Perl and TCL.	Create, Evaluate	7, 11	11, 12

TEXT BOOKS:

4. David Barron, "The World of Scripting Languages", Wiley Student Edition, 2021.

REFERENCEBOOKS:

8. Nathan Metzler, "Perl Programming for Beginners", 3rd Edition, Kindel, 2020.

9. Tom Christiansen, Brian D Foy, Larry Wall, Jon Orwant, "Programming Perl", O'Reilly, 3rd Edition, 2010.

10. John Ousterhout, "TCL and the Tk Toolkit", 2nd Edition, Kindel Edition, 2009.

SKILLS:

- Understanding the scripting languages basics and programming.
- Developing proficiency in writing TCL scripts for automation, system administration, and application development.
- Provide hands-on experience with practical applications using TCL and Tk toolkit for GUI development.
- Use of TCL in VLSI system design.

Image source:

<https://www.google.com/url?sa=i&url=https%3A%2F%2Fmedium.com%2F%40mayurkoshti12%2Fworking-with-apis-in-perl-a-step-by-step-guide-28b5cd5a9111&psig=AOvVaw2lbGQZCdc88plRmwsp1rni&ust=1741433070389000&source=images&cd=vfe&opi=89978449&ved=0CBQQjRxqFwoTCJicoNbu94sDFQAAAAAdAAAAABAS>

Image file name: Perl & TCL Programming (*Should be the course name*)

22VLXXX – MICROCHIP FABRICATION TECHNOLOGY

L T P SL C
3 2 0 3 4

PREREQUISITE KNOWLEDGE: VLSI Design

COURSE DESCRIPTION AND OBJECTIVES:

The course is intended to provide an understanding of current fabrication practices used in the semiconductor industry, along with the challenges and opportunities in device fabrication

MODULE-1

12L+12T+0P+12SL=36 Hours

UNIT-1: ENVIRONMENT FOR VLSI TECHNOLOGY

Brief History of Semiconductor technology, Scaling Trends and Scaling Methodologies, Scaling Challenges. Clean room and safety requirements. Wafer cleaning processes. Impurity incorporation: Solid State diffusion modelling and technology; Ion Implantation modelling and technology, damage annealing. Emerging trends in semiconductor materials structure, properties and doping techniques.

UNIT-2: OXIDATION AND LITHOGRAPHY

Oxidation: Kinetics of Silicon dioxide growth for thick, thin and ultrathin films. Oxidation technologies in VLSI and ULSI; Characterizations of oxide films; High k and low k dielectrics for ULSI. Lithography: Photolithography, E-beam lithography. Mask generation. Advanced lithography methods.

MODULE-2

18L+18T+0P+18SL=54 Hours

UNIT-1: DEPOSITION REQUIREMENTS AND TECHNIQUES-I

Physical vapor deposition (PVD) techniques: Evaporation - Thermal evaporation, Electron beam evaporation, Sputtering - Magnetron sputtering, Ion beam sputtering. Chemical vapor deposition (CVD) techniques: Photo assisted CVD, Thermally activated CVD, Plasma-enhanced CVD (RF, μ -Wave), Low-pressure CVD (LPCVD), Atmospheric-pressure CVD (APCVD).

UNIT-2: DEPOSITION REQUIREMENTS AND TECHNIQUES-II

Epitaxial growth techniques: Vapor-phase epitaxy (VPE), Molecular beam epitaxy (MBE), and Liquid-phase epitaxy (LPE). Wet and dry etching techniques: Wet etching chemistry, Plasma etching, Reactive ion etching (RIE), Deep reactive ion etching (DRIE). Etch requirements: Selectivity, anisotropy, and uniformity. Emerging deposition techniques: Atomic layer deposition (ALD) and its applications in high-k dielectrics and nanostructures. Wet and dry etching techniques, Etch requirements.

UNIT-3: INTERCONNECT TECHNOLOGY AND ADVANCED PROCESS FLOWS

CMOS and BJT process flow: Key steps and integration challenges. CMOS process for sub-100nm era: Low-k dielectrics with copper interconnects: Integration challenges and solutions. Strained silicon and silicon-germanium: Process techniques to overcome short-channel effects: Nanolithography techniques: multi-patterning and directed self-assembly. SOI technology: Fabrication and advantages for low-power applications.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1.	Apply and analyze the fabrication processes such as Etching, Deposition, and Epitaxy	Apply	1,2	1, 2, 3,4, 5, 9, 10.
2.	Prepare, characterize and analyze the samples with suitable techniques	Apply	1,2	1, 2, 3,4, 5, 9, 10.
3.	Comprehend and apply concepts related to interconnects and metallization, process flow, and integration with CMOS Technology	Analyze	2	1, 2, 3,4, 5, 9, 10.

SDGs

SDG 7 (Affordable and Clean Energy)

SDG 9 (Industry, Innovation, and Infrastructure)

SDG 12 (Responsible Consumption and Production)

SDG 13 (Climate Action)

IKS

Eco-friendly material processing (natural etchants, purification methods).

Advanced material knowledge (ancient metallurgy for semiconductor alloys).

TEXT BOOKS:

1. Peter Van Zant, "Microchip Fabrication: A Practical Guide to Semiconductor Processing", McGraw-Hill Professional, Sixth Edition, 2014.

REFERENCE BOOKS:

1. Gary. S. May and S. M. Sze, "Fundamentals of semiconductor fabrication", John Wiley, First Edition, 2003.

2. Marc J. Madou, "Fundamentals of Microfabrication and Nanotechnology - Volume II", CRC Press, Third Edition, 2011.

3. Stephen Campbell, "Science of Microelectronic Fabrication", Oxford University Press, 2001. James D. Plummer, Michael D. Deal, Peter B. Griffin, "Silicon VLSI Technology: Fundamentals, Practice and Modeling", Prentice Hall India Private Limited, 2000

SKILLS:

- Know various deposition techniques at the atomic and molecular level.
- Acquire knowledge about the structure and properties of thin films.
- Learn the advanced concepts in various vapour deposition techniques.
- Be aware of various morphological techniques and selecting appropriate tools for their future research.

Department Elective

22XXXXX – VERIFICATION USING SYSTEM VERILOG

Hours per week:

PREREQUISITE KNOWLEDGE: Digital Electronics, FPGA based System Design.

L	T	P	SL	C
3	0	2	3	4

COURSE DESCRIPTION AND OBJECTIVES:

To expose students to all aspects of functional verification of digital systems, with a focus on verifying hardware designs using a practical, hands-on approach. The course aims to introduce FPGA-based verification and emulation of VLSI systems, while also covering the foundational concepts of System Verilog and Object-Oriented Programming (OOP).

MODULE-1

18L+0T+12P+18SL=48 Hours

UNIT-1: BASICS OF SYSTEM VERILOG

Importance of functional verification in digital systems, Verification methodologies: Directed vs. Constrained-random verification, Verification flow and testbench components, Introduction to System Verilog for verification, Data Types, Arrays, Structures, Unions, Procedural Blocks, Tasks & Functions, Procedural Statements, Interfaces.

UNIT-2: Object-Oriented Programming (OOP) in SystemVerilog

Introduction to classes and objects in System Verilog, Class properties, methods, and constructors, Inheritance, encapsulation, and polymorphism, Static and dynamic objects, Use of OOP for building reusable testbench components, Randomization, Threads & Inter Process Communication.

PRACTICES:

- Structures and Unions
- Mailbox
- Interface
- Inheritance
- Polymorphism
- Randomization

MODULE-2

27L+0T+18P+27SL=72 Hours

UNIT-1: SYSTEM VERILOG TEST BENCH

Functional coverage concepts: Coverpoints, covergroups, bins, Cross coverage, coverage options, and sampling, Coverage analysis and coverage-driven verification (CDV), Writing and analyzing constrained-random testbenches, Test bench guidelines, A Complete System Verilog Test Bench (SVTB).

UNIT-2: SYSTEM VERILOG ASSERTIONS (SVA)-1

Introduction to SVA, building blocks, Properties, Boolean expressions, Sequence, Single & Multiple Clock definitions, Implication operators (Overlapping & Non- overlapping), Repetition operators.

UNIT-3: SYSTEM VERILOG ASSERTIONS (SVA)-2

Built-in System functions (\$past, \$stable, \$onehot, \$onehot0, \$isunknown), Constructs (ended, and, intersect, or, first match, throughout, within, disableiff, expect, matched, if – else), Assertion directives, Nested implication, Formal arguments in property.

PRACTICES:

- Immediate and concurrent assertions
- Implication operator
- Repetition operator
- Built-in system functions
- Constructs
- Functional Verification
- Complete Test bench of adder

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mappingwith POs
1	Outline the System Verilog environment of digital systems.	Apply	1	1, 5, 9
2	Apply Object-Oriented Programming concepts in SystemVerilog to design modular, reusable, and efficient verification components.	Apply	1	1, 2, 5, 9

3	Model a scenario for Verification of a DUT in System Verilog.	Apply	2	1, 2, 3, 4, 5, 9, 11
4	Develop an Assertion test plan based on specifications	Analyze	2	1, 2, 3, 5, 9
5	Create System Verilog assertions using formal verification tool and analyse results	Create	2	1, 2, 3, 4, 5, 9, 11

Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 8 (Decent work and economic growth)	No
SDG 9 (Industry, Innovation, and Infrastructure)	

TEXT BOOKS:

1. Stuart Sutherland, Simon Davidmann, Peter Flake, "SystemVerilog for design: a guide to using SystemVerilog for hardware design and modeling", Springer, ISBN 1402075308, 9781402075308, 2004.
2. Stephen Prata, "C++ Primer Plus", Pearson Education Inc, 2012.

REFERENCE BOOKS:

1. Janick Bergeron, "Writing testbenches using System Verilog", Birkhäuser, 2006.
2. Ben Cohen, cohen, Venkataramanan, Kumari, Srinivasan Venkataramanan, AjeethaKumari, "SystemVerilog Assertions Handbook - for Formal and Dynamic Verification", Vhdlcohen publishing, 2005.

SKILLS:

- Write a synthesizable more efficient Verilog code and test bench for verification of complex combinational and sequential circuits.
- Analyze various FPGS architectures and technologies to implement the complex designs in FPGA.



<https://blogs.sw.siemens.com/verificationhorizons/2021/02/16/systemverilog-syntax/>

22VLBXX - PHYSICAL DESIGN AUTOMATION

Hours per Week:

PREREQUISITE KNOWLEDGE:

- Logic circuits
- Linear circuit analysis
- Digital system design
- VLSI
- Basic programming skills (C/C++)

L	T	P	SL	C
3	0	2	3	4

COURSE DESCRIPTION AND OBJECTIVES:

This course provides an in-depth study of Physical Design Automation (PDA) techniques used in Very Large Scale Integration (VLSI) circuit design. It covers the essential stages of the backend design flow, including partitioning, floorplanning, placement, clock tree synthesis (CTS), routing, parasitic extraction, timing analysis, and power optimization.

MODULE-1

18L+0T+12P+18SL=48 Hours

UNIT-1: INTRODUCTION TO PHYSICAL DESIGN AUTOMATION

Introduction to VLSI Design flow, VLSI design cycle, new trends in VLSI design cycle,

Physical design cycle, Design styles, System packing styles- Die packing and attachment styles

UNIT-2: LAYOUT COMPACTION

Standard cell layout, Layout compaction, Design rules, symbolic layout, problem formulation, Algorithms for constraint-graph compaction.

PRACTICES:

- Using Cadence Innovus, perform Minimize the area of the design.
- Perform layout compaction while ensuring timing constraints are met.
- Optimize the layout to reduce both area and power consumption.
- After completing the layout of a simple combinational circuit (e.g., a 2-input AND gate), run Design Rule Checking (DRC) using Cadence Innovus.

MODULE-2

27L+0T+18P+27SL=72 HOURS

UNIT-1: PLACEMENT AND PARTITIONING

Design style placement problems Classification of placement algorithms, Simulation based placement algorithms and partitioning based placement algorithms. Timing-driven placement.

UNIT-2: GLOBAL ROUTING

Floor planning and routing- floor planning concepts. Shape functions and floor planning sizing. Local routing. Area routing. Channel routing, global routing and its algorithms.

UNIT-3: SIMULATION AND LOGIC SYNTHESIS

Simulation and logic synthesis- gate level and switch level modelling and simulation. Introduction to combinational logic syntheses. Introduction to High level synthesis.

PRACTICES:

- Create a clock tree for a simple design (e.g., 4-bit ALU) using Cadence Innovus

- Design a simple combinational circuit and complete the placement and routing using Cadence Innovus
- Perform post-layout power analysis in Cadence Innovus for a given design (e.g., a 16-bit register file).
- Optimize the floorplan for large designs with macro cells.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Students are able to know how to place the blocks and how to partition the blocks while for designing the layout for IC.	Understand	1,2	1, 2, 3, 4, 9, 10
2	Students are able to solve the performance issues in circuit layout.	Apply	1,2	1, 2, 3, 4, 9, 10
3	Students are able to analyze physical design problems and Employ appropriate automation algorithms for partitioning, floor planning, placement and routing	Analyze	1,2	1, 2, 3, 4, 9, 10
4	Students are able to decompose large mapping problem into pieces, including logic optimization with partitioning, placement and routing	Create	1,2	1, 2, 3, 4, 9
5.	Students are able to analyze circuits using both analytical and CAD tools	Analyze	1,2	1, 2, 3, 4, 9, 10

SDGs	IKS
SDG 4: Quality Education SDG 7 (Affordable and Clean Energy) SDG 9 (Industry, Innovation, and Infrastructure) SDG 11: Sustainable Cities and Communities SDG 12: Responsible Consumption and Production	

BOOKS AND REFERENCES

TEXT BOOK:

1. S.H. Gerez, "Algorithms for VLSI Design Automation", John Wiley ,latest editon .

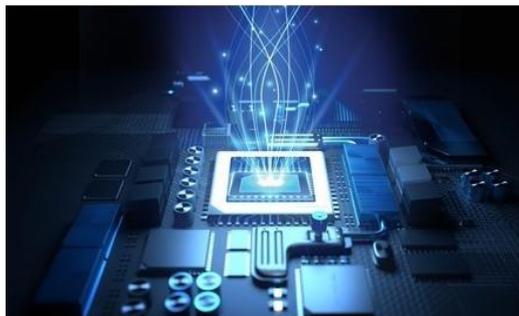
REFERENCES:

5. S.M. Sait , H. Youssef, "VLSI Physical Design Automation", World scientific, 1999.
6. N.A.Sherwani , "Algorithms for VLSI Physical Design Automation", (3/e), Kluwer,1999.
- 7.
8. M. Sarrafzadeh, "Introduction to VLSI Physical Design", McGraw Hill (IE), 1996.
9. VLSI Physical Design Automation: Theory and Practice, Sadiq M. Sait, Wspc, 1999, ISBN 978-9810238834.
10. Algorithms for VLSI Physical Design Automation, 3/E, Naveed A. Sherwani, Springer, 1998, ISBN 978-0792383932
11. Practical Problems in VLSI Physical Design Automation, Sung Kyu Lim, Springer, 2008, ISBN 978-1402066269.

SKILLS:

- A strong understanding of the VLSI design flow is developed, covering all stages from RTL design to physical implementation.
- Proficiency in floorplanning and placement techniques is gained to optimize chip area and performance.
- Knowledge of routing algorithms and techniques is acquired to create efficient signal paths and reduce congestion.
- Skills in timing analysis and optimization are honed to ensure that designs meet clock and data path timing requirements.
- An understanding of Design for Manufacturability (DFM) is gained to ensure designs are robust for the fabrication process.
- Expertise in power analysis and optimization is developed to minimize power consumption while maintaining performance.
- Proficiency in performing physical verification and DRC/LVS checks is acquired to ensure designs meet manufacturing constraints and are error-free.

Image Source: <https://www.linkedin.com/pulse/important-vlsi-blogs-learning-physical-design-sriharsha-pudi>



22EEXX – RF CMOS DESIGN

Hours per week:

PREREQUISITE KNOWLEDGE: Analog IC Design, Communication Theory, Electromagnetic Theory and Transmission Lines, Microwave Theory.

L	T	P	SL	C
3	0	2	3	4

COURSE DESCRIPTION AND OBJECTIVES:

The proposed course is an advanced course towards analysis and design of RF integrated circuits and systems by systematic understanding of RF electronics. This covers topics like transceiver architectures, CMOS LNA designs, RF Mixers, RF Oscillators, Frequency Synthesizers and Power Amplifier Designs. The main objectives of the course is CMOS RF circuits analysis and designs.

MODULE-1

18L+0T+12P+18SL=48 Hours

UNIT-1: BASIC CONCEPTS IN RF DESIGN

Harmonics, gain compression, desensitization, blocking, cross modulation, intermodulation, inter symbol interference, noise figure, Friis formula, sensitivity and dynamic range.

UNIT-2: TRANSCEIVER ARCHITECTURES

Receiver: Heterodyne receivers, homodyne receivers, image-reject receivers, digital-IF receivers and subsampling receivers.

Transmitter: Direct-conversion transmitters, two-step transmitters.

PRACTICES:

- S-parameter Simulations
- Harmonic Balance Simulations
- Link Budget Analysis
- RF system Design

MODULE-2

18L+0T+12P+18SL=48 Hours

UNIT-1: CMOS LNA AND MIXER DESIGN

LNAs: General considerations, input matching, CMOS LNAs

MIXERS: General considerations, CMOS Mixers, Noise in Mixers.

UNIT-2: RF OSCILLATORS AND FREQUENCY SYNTHESIZERS

OSCILLATORS: General considerations, Basic LC Oscillator topologies, Voltage Control Oscillator, CMOS LC Oscillators.

FREQUENCY SYNTHESIZERS: General Considerations, Basic PLL, Charge-Pump PLLs, Type I and Type II PLLs, Noise in PLLs.

UNIT-3: POWER AMPLIFIERS

General Considerations, Classification of Power Amplifiers, High-Efficiency Power Amplifiers, High-Efficiency Power Amplifiers, Design Examples.

PRACTICES:

- Design of CMOS LNA.
- Design of CMOS Mixer.
- Design of CMOS Oscillator.
- Design of CMOS PA

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1.	Students can able to analysis performance metrics for RF integrated circuits	Analyze	1, 2, 4, 9, 10
2.	Students able to do analyze various transceiver architectures.	Analyze	1, 2, 9, 10
3.	They can design RF CMOS LNAs and Mixers	Apply	1, 2, 9, 10, 12
4.	Students can able to design CMOS PAs	Apply	1, 2, 9, 10, 12

Mapping of SDGs

Sustainable Development Goals (SDGs)
SDG 7 (Affordable and Clean Energy)
SDG 9 (Industry, Innovation, and Infrastructure)
SDG 11 (Sustainable Cities & Communities)
SDG 12 (Responsible Consumption and Production)

TEXT BOOKS:

5. Behzad Razavi "RF Microelectronics", 2nd Edition, Prentice Hall Communications Engineering and Emerging Technologies, 2011.

REFERENCEBOOKS:

11. Thomas H. Lee, The design of CMOS radio-frequency integrated circuit, Cambridge University Press, 2006
12. Chris Bowick, RF Circuit Design, Newnes, 2007
13. NPTEL Video Lectures

SKILLS:

- Analyzing the design challenges in RF CMOS designs
- Designing Front end amplifiers in circuit simulator tools like ADS/Cadence.
- Designing RF Mixers and Oscillators in circuit simulator tools like ADS/Cadence.

Image source: <https://rfic.ece.ucsb.edu/research/radio-frequency-and-millimeter-wave-integrated-circuits>.

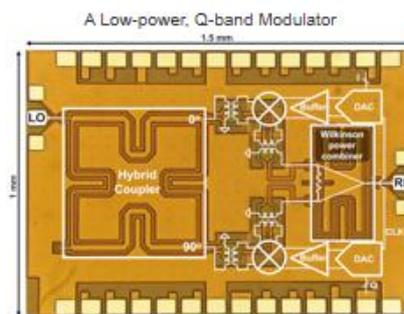


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22ECXXX – HARDWARE VERIFICATION TECHNIQUES

Hours per week:

L	T	P	SL	C
3	0	2	3	4

PREREQUISITE KNOWLEDGE: VLSI Design & Testing of VLSI Circuits

COURSE DESCRIPTION AND OBJECTIVES:

This course provides knowledge about various verification methods for software and hardware, addressing the industry needs in software/hardware co-designs. The objective of the course is to deal with the techniques for verification of hardware and concurrent software programs.

MODULE-1

18L+0T+12P+18SL=48 Hours

UNIT-1: VERIFICATION BASICS

Testbench- The importance of verification, Reconvergence model, Automation, Poka-Yoke redundancy, Equivalence checking model, Checking functional verification, Functional verification, Testing versus verification design and verification reuse.

UNIT-2: VERIFICATION TOOLS

Linting tools - Simulators, Verification intellectual property, Code coverage, Functional coverage verification languages, Assertions, Revision control, Issue tracking metrics, Interpreting metrics.

PRACTICES:

- Examples of Poka- Yoke redundancy
- Implementation of equivalence checking model.
- Functional verification.
- Simulation of assertions.
- Examples of Interpreting metrics

MODULE-2

27L+0T+18P+27SL=72 Hours

UNIT-1: VERIFICATION PLAN

The role of the verification plan, Levels of verification-from specification to features, directed test benches approach, Coverage driven, Random based approach directed test cases.

UNIT-2: STIMULUS AND RESPONSE

Reference signals, Simple stimulus, Simple output, Complex stimulus, Bus-functional models, Response monitors, Transaction-level interface.

UNIT-3: ARCHITECTING TEST BENCHES

Test harness, VHDL test harness, Design configuration, Self-checking test benches, directed stimulus, Random stimulus, defining scenarios, Behavioral models, Managing simulations, Regression.

PRACTICES:

- Examples of random based approach test cases
- Examples of Transaction-level interface
- Implementing Test harness
- Implementation of Regression

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1.	Outline the System Verilog environment of digital systems and analyze.	Understand	1, 2, 4, 5, 8, 9, 11
2.	Model a scenario for Verification of a DUT in System Verilog.	Apply	1, 2, 5, 8, 9
3.	Develop UVM environment at chip level.	Apply	1, 2, 3, 5, 8, 9
4.	Create test benches for digital systems.	Create	1, 2, 5, 8, 9, 11

Mapping of SDGs and IKS

Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 8 (Decent Work and Economic Growth)	No
SDG 9 (Industry, Innovation, and Infrastructure)	

TEXT BOOKS:

1. Stuart Sutherland, Simon Davidmann, Peter Flake, "System Verilog for design: a guide to using System Verilog for hardware design and modeling", Springer, ISBN 1402075308, 9781402075308, 2004
2. Stephen Prata, "C++ Primer Plus", Pearson Education Inc, 2012.
3. William K. Lam, "Hardware Design Verification: Simulation and Formal Method-Based Approaches", Pearson, ISBN: 9780131433472, 2005.

REFERENCEBOOKS:

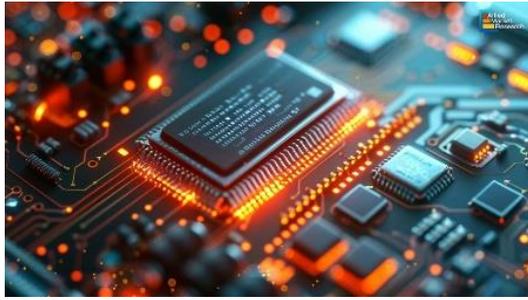
14. Chris Spear, "System Verilog for Verification: A Guide to Learning the Test bench Language Features", 2nd edition, Published by Springer, 2008.
15. Srikanth Vijayaraghavan, Meyyappan Ramanathan, "A Practical guide for System Verilog Assertions", Springer, 2005.
16. Sharon Rosenberg, Kathleen A Meade, "A practical guide to adopting the Universal Verification Methodology", 2010.

SKILLS:

- Verify the functional properties of the hardware design.
- Write test benches for functional verification of HDL models.
- Realize impact of HVT on modern designs.

Image source: https://media.licdn.com/dms/image/D4D12AQFaweiu0IzA_A/article-cover_image-shrink_720_1280/0/1711020399440?e=1723680000&v=beta&t=S-uZR7VDgJpk6gvhjseTlxwHq_4PnnBTS2ipfFkBek.

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22XXXXX – Mixed Signal Design

Hours per week:

L	T	P	SL	C
3	0	2	3	4

PREREQUISITE KNOWLEDGE: CMOS Analog IC design.

COURSE DESCRIPTION AND OBJECTIVES:

This course focuses on advanced design approaches for bandgap references, comparators, ADC/DAC, oscillators, and PLL. The objective of the course is to build and implement the product level design blocks for VLSI applications.

MODULE-1

18L+0T+12P+18SL=48 Hours

UNIT-1: Mixed signal circuits

Comparator & Multiplier: Characterization of a comparator, Basic CMOS comparator design, analog multiplier

PLL: Simple PLL, charge-pump PLL, applications of PLL

UNIT-2: Switched Capacitor and sample and hold circuits

Switched Capacitor circuits: Basic principles, switched capacitor sensitive integrator and insensitive integrator, switched capacitor filter, switched capacitor amplifier.

Sample & hold and trans-linear circuits: Performance of sample-and-hold circuits, MOS sample-and-hold basics, examples of CMOS S/H Circuits, trans-linear gain Cell, trans-linear multiplier.

PRACTICES:

Design and simulate the following mixed signal circuits.

- High speed and high gain comparators.
- PLL
- Switched Capacitor circuits.
- Sample and Hold circuit.

MODULE-2

27L+0T+18P+27SL=72 Hours

UNIT-1: Analog Filters

Analog CMOS Filters: Low Pass filters, active-RC fully differential integrator, Two transistor MOSFET- C integrator, gm-C Integrator, Active RC integrators.

UNIT-2: Digital to Analog Converters

Data converters specifications: Ideal D/A converter, quantization noise, performance metrics, resolution, offset and gain error, accuracy, and linearity.

D/A Converter architectures: Resistor-Ladder architectures, Capacitive DAC, Cyclic DAC, current-steering, Pipeline DAC.

UNIT-3: Analog to Digital Converters

ADC Specifications, ideal A/D converter, A/D converter architectures: Flash architectures, interpolate and folding architectures, pipelined architectures, Ramp type ADC, Integrating (Dual slope) ADC, Successive approximation architectures, Sigma Delta ADC, Design of Decimation filter.

PRACTICES:

Design and simulate the following mixed signal circuits.

- First order filter

- gm-C Integrator
- Capacitive DAC
- Flash ADC

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Analyze CMOS based comparator and PLL.	Understand	1	1, 2, 5, 9, 11
2	Use the techniques and skills for designing CMOS based switched capacitor circuits and enhance the performance of sampling circuits	Apply	1	1, 2, 3, 5, 9
3	Design the frequency and Q tunable time domain filters	Apply	2	1, 2, 3, 5, 9, 11
4	Identify, formulates, and solves engineering problems in data converters of mixed-signal design	Analyze	2	1, 2, 3, 4, 5, 9, 11

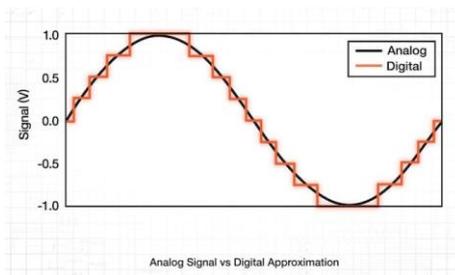
Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 8 (Decent work and economic growth)	No
SDG 9 (Industry, Innovation, and Infrastructure)	

TEXT BOOKS:

1. B.Razavi, "Design of analog CMOS integrated circuits", McGraw Hill, 2001.
2. B.Razavi, "Principles of data conversion system design", S.Chand and company ltd, 2000.
3. Jacob Baker et. all, "CMOS Mixed-Signal circuit design", IEEE Press, 2002

REFERENCE BOOKS:

1. Gregorian, Temes, "Analog MOS Integrated Circuit for signal processing", John Wiley & Sons.
2. Schreier & Themes, Understanding Delta-Sigma Data Converters, Wiley –IEEE Press, 2004.



https://www.allaboutcircuits.com/uploads/articles/ADC_and_DAC_mixed_signal_ICs.jpg

SKILLS:

- Identify and analyse various switched capacitor circuits.
- Design of phase locked loops.
- Analyse the performance of ADC's & DAC's.

22XXXXX – Hardware Security

Hours per week:

L	T	P	SL	C
3	0	2	3	4

PREREQUISITE KNOWLEDGE: Algebra of Finite Fields, Basics of the Mathematical Theory of Public Key Cryptography, Basics of Digital Design on Field-programmable Gate Array (FPGA), Classification using Support Vector Machines (SVMs) .

COURSE DESCRIPTION AND OBJECTIVES:

This course covers hardware security threats, countermeasures, and cryptographic techniques in VLSI circuits and embedded systems. It focuses on secure chip design, side-channel attacks, physical security, and AI-driven security mechanisms in modern semiconductor technologies.

MODULE-1

18L+0T+12P+18SL=48 Hours

UNIT-1: Introduction to Hardware Security

Overview of Hardware Security in VLSI & Embedded Systems, Types of Security Threats: Physical attacks, Side-channel attacks, Hardware Trojans, Comparison of Hardware and Software Security Mechanisms, Trusted Computing and Secure Boot

UNIT-2: Cryptographic Hardware & Secure Key Management

Introduction to Cryptographic Primitives (AES, RSA, ECC), Implementation of Cryptographic Algorithms, True Random Number Generators (TRNGs) and Physically Unclonable Functions (PUFs), Key Management and Secure Key Storage in Hardware, Secure Hardware for Block-chain and IoT Devices

PRACTICES:

1. Side-Channel Attack Demonstration on Cryptographic Circuits
2. Implementation of PUFs for Chip Authentication

MODULE-2

27L+0T+18P+27SL=72 Hours

UNIT-1: Side-Channel Attacks and Countermeasures

Types of Side-Channel Attacks: Power Analysis, Timing Analysis, Fault Injection Attacks (Laser, EM, Voltage, Clock Glitches), Countermeasures: Masking, Obfuscation, Shielding, Error Correction

UNIT-2: Hardware Trojans & Backdoors in ICs

Hardware Trojans (HTs) and Their Types, HT Detection Techniques: Functional testing, Side-channel analysis, Machine Learning.

UNIT-3: Secure System-on-Chip (SoC) and FPGA Security

Secure SoC Architectures: Secure Boot, Trusted Execution Environment (TEE), FPGA Security Threats: Bit stream Attacks, Reverse Engineering, FPGA-based Cryptographic Acceleration, AI-Driven Threat Detection in FPGA and ASIC Designs, AI-based Side-Channel Attack Mitigation

PRACTICES:

1. Design and Testing of Secure Boot Mechanisms
2. Simulation of Hardware Trojan Insertion and Detection

3. FPGA-based Cryptographic Acceleration using AES/RSA

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mappingwith POs
1	Explain fundamental concepts of hardware security, including security threats, trusted computing, and secure boot mechanisms.	Apply	1	1,2
2	Analyze cryptographic hardware implementations, including AES, RSA, ECC, TRNGs, and PUFs, and their applications in blockchain and IoT security.	Apply	1	1,2,5
3	Demonstrate practical knowledge of side-channel attacks and evaluate countermeasures such as masking, obfuscation, and shielding.	Apply	2	2,4,5
4	Identify and assess different types of hardware Trojans and backdoors, and implement detection techniques using functional testing and machine learning.	Analyze	2	2,4,6
5	Develop secure System-on-Chip (SoC) architectures, analyze FPGA security threats, and implement cryptographic acceleration techniques.	Create	2	3,5,6

Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 9 (Industry, Innovation, and Infrastructure)	No
SDG 16 (Peace, Justice, and Strong Institutions)	
SDG 11 (Sustainable Cities and Communities)	

TEXT BOOKS:

1. Hardware Security: A Hands-on Learning Approach" – Patrick Schaumont
2. "Introduction to Hardware Security and Trust" – Mohammad Tehranipoor, Cliff Wang

REFERENCE BOOKS:

3. Secure Integrated Circuits and Systems" – Ingrid Verbauwhede
4. IEEE Transactions on Hardware Security & Trust



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SYSTEM ON CHIP DESIGN

Hours per week:

L	T	P	SL	C
3	2	0	3	4

PREREQUISITE KNOWLEDGE: VLSI Design, Digital Design.

COURSE DESCRIPTION AND OBJECTIVES: This course offers the concepts of integrating all components of any electronic system into a single chip. The objective of the course is to introduce the students to digital, analogue, mixed- signal, and radio-frequency functions to integrate all on a single chip substrate.

MODULE-1

18L+12T+0P+18SL=48 Hours

UNIT-1: INTRODUCTION TO SoC TECHNOLOGY

System trade-offs and evolution of ASIC technology, System on chip concepts and Methodology and design paradigms in SoC development.

UNIT-2: CORE SoC DESIGN CHALLENGES AND COMPONENTS

SoC Design Issues: Complexity management, Power management and thermal considerations, Signal integrity and noise analysis, Clock distribution and synchronization, Verification and testing.

SoC Components: Processor cores, Memory subsystems, Peripheral interfaces (I/O), Interconnect architectures (buses, NoC).

PRACTICES:

- Compare ASIC and SoC implementations by studying their evolution
- Analyze complex SoC flows to then outline a top-down design process using studied methodologies.
- Analyze CPU power consumption characteristics to formulate a power management strategy for a wearable System-on-Chip.
- Explore on-chip interconnect architectures and analyze their suitability for different SoC types
- Examine clock distribution challenges and signal integrity issues in high-speed I/O

MODULE-2

27L+18T+0P+27SL=72Hours

UNIT-1: LOGIC CORE DESIGN METHODOLOGY

SoC Design Flow, Specification, design, implementation, and verification stages, Hardware Description Languages (HDLs), Synthesis and place-and-route, On-Chip Buses, Logic Core Types and Design, Hard cores, soft cores, and firm cores: characteristics and design processes

UNIT-2: MEMORY and ANALOG CORE DESIGN

Embedded Memories, Types of embedded memories, Memory design considerations (area, speed, power), Analog Core Design, Simulation and specification of analog circuits, ADCs, PLL, High-speed I/O design.

UNIT-3: SoC VALIDATION and TESTING

Functional verification of individual cores, Hardware/software co-simulation and co-verification, System-level testing and validation, **SoC Test Issues and Techniques:** Testing of digital logic cores, Built-in self-test (BIST) methods, Case studies on SoC validation and testing.

PRACTICES:

- Analyze test bench simulations to verify logic core functionality against specifications.
- Examine core type choices (hard, soft, firm) relative to SoC specifications and design workflow.
- Study memory types and ADC principles to learn embedded and analog core design.
- Apply HDL design to synthesize a logic core; apply BIST to simulate fault coverage.
- Develop a cost-benefit analysis for SoC testing from a case study, examining equipment, time, and yield gains.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1.	Analyze the fundamental concepts, methodologies, design issues of System- on-Chip.	Analyze	1	1, 2, 4, 5, 8, 9, 11

2.	Identify and describe the key components of an SoC, such as processor cores, memory subsystems, and interconnect architectures.	Apply	1	1, 2, 5, 8, 9
3.	Apply the knowledge of methods and design issues in hard-core, soft-core process and analogue circuits.	Apply	2	1, 2, 3, 5, 9, 10
4.	Analyze the software and hardware simulation and validate it.	Analyze	2	1, 2, 5, 9, 10, 12
5.	Articulate the complexities of ensuring testability for digital logic cores.	Apply	2	1, 2, 5, 9, 10

Mapping of SDGs and IKS

Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 9 (Industry, Innovation, and Infrastructure)	YES

TEXT BOOKS:

1. Rochit Rajsuman, "System-on-a-chip: Design and Test", 2nd edition, Santa Clara, CA: Artech House, 2000.
2. Prakash Rashinkar, Peter Paterson and Leena Singh, "System-on-a-chip verification: Methodology and Techniques", 3rd edition, Kluwer Academic Publishers, 2011.

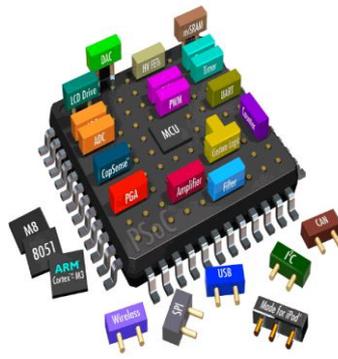
REFERENCE BOOKS:

1. M. Keating, D.Flynn, R.Aitken, A. Gibbons and K. Shi, "Low Power Methodology Manual for System-On-Chip Design Series (Integrated Circuits and Systems)", 2nd edition, Springer, 2007.
2. L.Balado and E. Lupon, "Validation and test of systems on chip", Twelfth Annual IEEE conference on ASIC/SOC, 1999.

SKILLS:

- Analyze SoC trade-offs for optimization.
- Use HDL to design logic cores.
- Design on-chip bus/NoC architectures.
- Select embedded memory for applications.
- Simulate and analyze analog circuits.
- Verify SoC using test benches.
- Co-simulate hardware and software designs.
- Manage complete SoC design flow.

Image



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Image source: <https://microcontrollerslab.com/system-on-chip-soc-introduction/>

QUANTUM COMPUTING IN VLSI

Hours per Week:

L	T	P	SL	C
2	2	0	2	3

PREREQUISITE KNOWLEDGE:

- Linear Algebra
- Basic Quantum Mechanics
- Computational Theory
- Classical Programming (e.g., Python, C++, Java)
- Digital Logic Design
- VLSI Design Fundamentals
- CMOS Technology and Semiconductor Physics

COURSE DESCRIPTION AND OBJECTIVES:

This course provides an in-depth exploration of the intersection between quantum computing and VLSI design. It introduces students to the principles of quantum mechanics and quantum computing, along with the application of these concepts to the design and implementation of quantum circuits within VLSI systems. The course covers quantum algorithms, quantum error correction, quantum hardware, and how quantum systems are integrated with classical VLSI components

MODULE-1

12L+12T+0P+12SL=36 Hours

UNIT-I: INTRODUCTION TO QUANTUM COMPUTING

Basic of quantum mechanics, quantum postulates, superposition, entanglement and, No cloning theorem

UNIT-2: QUBIT AND ITS STATES

Qubits, measurement on single and multiple qubits, Hilbert space, state vector Bra-Ket notation, Bloch sphere, Protocols with multi-qubits: Swapping - Teleportation - gates: CNOT - Toffoli gate - NAND - FANOUT - Walsh Hadamard

MODULE-2

18L+18T+0P+18SL=54 Hours

UNIT-I: QUANTUM COMPUTING AND NETWORK COMPONENTS

Single and two Qubit quantum gates, unitary transformation, composite state tensor Product, cascade and parallel quantum circuits, Quantum diode, quantum router, quantum memory.

UNIT-II: POTENTIAL QUANTUM ALGORITHMS

Classical computing using qubits - Quantum key distributions, quantum teleportation, Grover's algorithm (data base search) and shor's algorithm, Deutsch-Jozsa algorithm.

UNIT-III: QUANTUM CIRCUITS

Basic gates - ABC decomposition - Gray codes - Universal gates - Principle of deferred and implicit measurements - Quantum Fourier transform - applications: phase estimation, order finding - factoring, discrete logarithm and hidden subgroup problems. Quantum error correcting codes, Physical realization of qubits.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Understand the principles of quantum computation qubit	Apply	1,2	2, 3, 4, 9, 10
2	Analyze multi-qubit systems and protocols	Create	1,2	2, 3, 4, 9, 10
3	Apply quantum measurement and entanglement concepts	Create	1,2	2, 3, 4, 9, 10
4	Design and implement quantum algorithms and circuits	Create	1,2	2, 3, 4, 9, 10

SDGs	IKS
SDG 7 (Affordable and Clean Energy) SDG 9 (Industry, Innovation, and Infrastructure) SDG 12(Responsible Consumption and Production)	

BOOKS AND REFERENCES

TEXT BOOK:

1. M. A. Nielsen and I. L. Chuang, Quantum Computation and Quantum Information, Cambridge University Press, 2010, 10th Anniversary Edition

REFERENCES:

1. Quantum Theory: Concepts and Methods, Asher Peres, Kluwer Academic Publishers, 1993.
2. Venkateswaran Kasirajan, Fundamentals of Quantum Computing: Theory and Practice, Springer, 2021.
3. Chris Bernhardt, Quantum Computing for Everyone, The MIT Press, 2019.

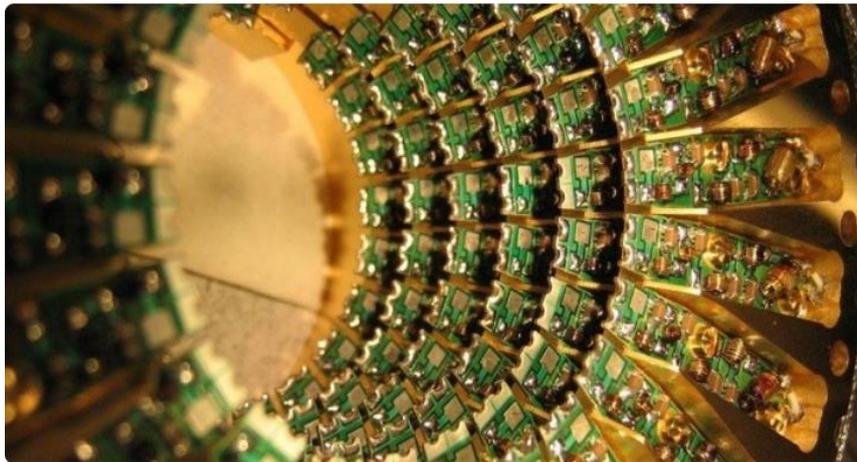
SKILLS:

- A deep understanding of quantum mechanics and quantum computing principles is developed, covering concepts like superposition, entanglement, qubits, and quantum gates.

- Proficiency in quantum algorithm design is gained, including key algorithms like Shor's for factoring and Grover's for searching, and their applications to real-world problems.
- A strong understanding of quantum circuit design is developed, covering the creation and optimization of quantum gates and quantum circuits.
- Experience in hybrid quantum-classical systems integration is gained, with a focus on how classical VLSI components control quantum processors and ensure efficient communication.
- Knowledge of quantum error correction (QECC) and fault-tolerant quantum computing is acquired, with the ability to implement and troubleshoot error correction techniques in quantum circuits.
 - Experience in simulating and testing quantum circuits is gained, using tools like Qiskit, and ensuring quantum circuits meet performance metrics such as fidelity, coherence time, and gate error rates.

Image Source:

https://www.google.com/search?q=quantum+mechanics+QUANTUM+COMPUTING+IN+VLSI&sca_esv=ee3395f8cbb9de9c&rlz=1C1CHZN_enIN1146IN1146&udm=2&biw=1366&bih=641&sxsrf=AHTn8zp5DbT1hk5DJK6SRYCNySK7anp5JA%3A1741854953150&ei=6ZjSZ6TmCNGt4-EPn5fzmAc&ved=0ahUKEwjk_u2t04aMAxXR1jgGHZ_LHHMQ4dUDCBI&oq=quantum+mechanics+QUANTUM+COMPUTING+IN+VLSI&gs_lp=EgNpbWciK3F1YW50dW0gbWVjaGFuaWNzIFFVQU5UVU0gQ09NUFVUSU5HIElOIFZMU0llww5QAFgAcAF4AJA_BAJgBAKABAKoBALgBDMgBAJgCAKACAjgDAIgGAZIHAKAHAA&scient=img#vhd=0h5OfELgBMjbsM&vssid=mosaic



3	2	0	3	4
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PREREQUISITE KNOWLEDGE: Basic understanding of VLSI Design, Fundamentals of Electromagnetic Theory, Semiconductor Physics.

COURSE DESCRIPTION AND OBJECTIVES:

This course introduces the principles of photonics and optical circuits, focusing on their integration with VLSI technology. Students will learn about light-matter interaction, optical materials, waveguides, photonic devices and their applications in communication, sensing and computing. The course also covers emerging trends in photonic integrated circuits (PICs) and their role in next-generation VLSI systems.

MODULE-1

UNIT-1: INTRODUCTION TO PHOTONICS AND OPTICAL MATERIALS

[8L+8T+0P=16 Hours]

Introduction to Photonics: Historical perspective, importance in modern technology. Light Matter Interaction: Absorption, emission, and scattering of light. Optical Materials: Dielectric materials, semiconductors and polymers for photonics. Optical Properties of Materials: Refractive index, dispersion and nonlinear optical effects. Emerging Materials: Photonic crystals, metamaterials, and 2D materials.

UNIT-2: OPTICAL WAVEGUIDES AND FIBERS

[8L+8T+0P=16 Hours]

Waveguide Fundamentals: Modes, dispersion and confinement of light. Types of Waveguides: Planar waveguides, channel waveguides and photonic crystal waveguides. Optical Fibers: Structure, modes, and propagation characteristics. Fiber Optic Communication: Principles, advantages and challenges. Applications of Waveguides and Fibers: Optical interconnects, sensors, and integrated photonics.

MODULE-2

UNIT-1: PHOTONIC DEVICES AND COMPONENTS

[6L+6T+0P=12 Hours]

Light Sources: LEDs, laser diodes and vertical-cavity surface-emitting lasers (VCSELs). Photodetectors: PIN photodiodes, avalanche photodiodes and phototransistors. Modulators and Switches: Electro-optic, thermo-optic and acousto-optic devices. Passive Components: Couplers, splitters and filters. Emerging Devices: Plasmonic devices, quantum dot-based devices and integrated photonic circuits.

UNIT-2: PHOTONIC INTEGRATED CIRCUITS (PICs)

[6L+6T+0P=12 Hours]

Introduction to PICs: Design principles and fabrication techniques. Integration with VLSI: Challenges and opportunities. Materials for PICs: Silicon photonics, III-V semiconductors, and hybrid integration. Applications for PICs: Optical communication, data centers and quantum computing.

UNIT-3: APPLICATIONS AND EMERGING TRENDS IN PHOTONICS

[6L+6T+0P=12 Hours]

Optical Communication Systems: Wavelength division multiplexing (WDM), coherent communication, and free-space optics. Optical Sensors: Fiber Bragg gratings, surface plasmon resonance (SPR) sensors and biosensors. Photonics in Computing: Optical interconnects, photonic neural networks and quantum photonics. Emerging Trends: Integrated quantum

photonics, topological photonics and AI-driven photonic design. Sustainability in Photonics: Energy-efficient photonic devices and green manufacturing.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Bloom's Level	Module No.	Mapping with POs
1	Understand the principles of light-matter interaction and optical materials.	Understand	1	1, 2, 3, 4, 5
2	Analyze and design optical waveguides and fibers for specific applications.	Analyze	1	1, 2, 3, 4, 5
3	Evaluate the performance of photonic devices and components.	Evaluate	2	1, 2, 3, 4, 5
4	Design and simulate photonic integrated circuits (PICs) for VLSI applications.	Create	2	1, 2, 3, 4, 5
5	Explore emerging trends and applications of photonics in communication, sensing, and computing.	Apply	2	1, 2, 3, 4, 5

SDGs	IKS
SDG 7 (Affordable and Clean Energy)	Ancient Indian Optics (Surya Siddhanta, Aryabhata, Varahamihira) – Concepts of light propagation and refraction, relevant to solar energy harvesting using photonic materials.
SDG 9 (Industry, Innovation, and Infrastructure)	Temple Optics and Precision Engineering – High-precision optical alignments in ancient temples (Konark Sun Temple) inspiring modern optical circuit alignment techniques.
SDG 12 (Responsible Consumption and Production)	Advanced Material Knowledge – Use of natural dyes and materials for optical coatings in ancient Indian art, relevant to eco-friendly photonic device fabrication.
SDG 11 (Sustainable Cities and Communities)	Jantar Mantar (Astronomical Observatories) – Precision optical instruments used for celestial navigation, influencing modern LIDAR and optical sensing technologies.

TEXT BOOKS:

1. Bahaa E. A. Saleh and Malvin Carl Teich, *Fundamentals of Photonics*, 3rd Edition, Wiley, 2019.
2. Richard S. Quimby, *Photonics and Lasers: An Introduction*, Wiley, 2006.

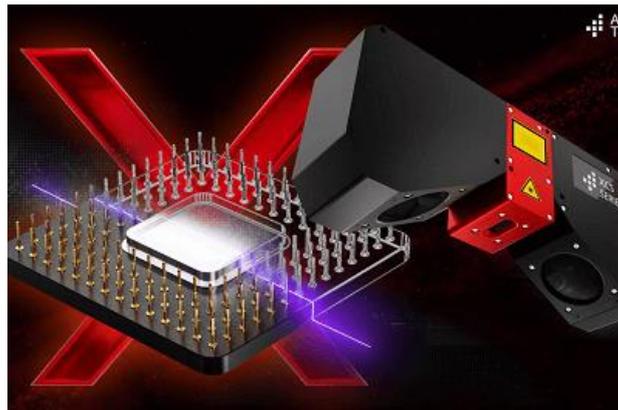
REFERENCE BOOKS:

1. Lionel C. Kimerling et al., *Silicon Photonics: The State of the Art*, Wiley, 2008.
2. Gerd Keiser, *Optical Fiber Communications*, 5th Edition, McGraw-Hill, 2015.
3. John M. Senior, *Optical Fiber Communications: Principles and Practice*, 3rd Edition, Pearson, 2009.
4. David A. B. Miller, *Quantum Mechanics for Scientists and Engineers*, Cambridge University Press, 2008.

SKILLS:

- Gain a deep understanding of photonic principles and their integration with VLSI technology.
- Learn to design and analyze optical waveguides, fibers and photonic devices.
- Develop skills in simulating and optimizing photonic integrated circuits (PICs).
- Explore emerging trends and applications in photonics for communication, sensing, and computing.

Image Link : https://www.photonics.com/Issues/Photonicscom_May_2024/i1830



22XXXXX – AI-VLSI

Hours per week:

L	T	P	SL	C
3	0	2	3	4

PREREQUISITE KNOWLEDGE: Linear Algebra, Fundamentals of VLSI Design and Image Processing

COURSE DESCRIPTION AND OBJECTIVES:

Artificial Intelligence (AI) is revolutionizing VLSI (Very Large Scale Integration) by enhancing chip design, verification, optimization, and manufacturing. AI-driven tools are helping reduce design complexity, improve power efficiency, and accelerate time-to-market for semiconductor devices. AI in VLSI course is designed to introduce students to the integration of Artificial Intelligence (AI) and Machine Learning (ML) techniques in Very Large Scale Integration (VLSI) design, verification, and manufacturing. The scope of AI/ML at various levels of abstraction will be covered in detail.

MODULE-1

18L+0T+12P+18SL=48 Hours

UNIT1: Introduction to VLSI and AI:

Basics of VLSI Design, Evolution of AI in VLSI, Supervised, Unsupervised, and Reinforcement Learning, Role of AI in modern semiconductor industry

Unit 2: AI in VLSI Design Automation (EDA Tools):

AI-enhanced Electronic Design Automation (EDA), Logic synthesis & AI-based RTL (Register Transfer Level) optimization, Placement and Routing using AI, AI-assisted power, performance, and area (PPA) optimization, Reinforcement Learning for floor-planning and chip layout optimization

PRACTICES:

1. AI-based logic synthesis using Cadence/Synopsys tools
2. ML models for power and performance estimation

MODULE-2

27L+0T+18P+27SL=72 Hours

Module II

Unit 1: AI for Verification & Testing in VLSI

AI-driven Functional Verification, Machine Learning for Design for Testability (DFT) and test pattern generation.

Unit 2: AI in Semiconductor Manufacturing & Yield Prediction:

AI-based defect detection in semiconductor wafers, Computer Vision for wafer inspection and process monitoring, Yield prediction

Unit 3: AI in FPGA & ASIC Design:

Neural network accelerators in FPGA, AI-optimized ASIC design for deep learning applications, Reconfigurable AI architectures for low-power and edge computing

PRACTICES:

1. AI-driven fault analysis for VLSI circuits

2. Computer Vision for wafer defect detection
3. Implementation of AI-optimized FPGA accelerators

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mappingwith POs
1	Abe to get fundamentals of VLSI design and the role of AI in semiconductor technology.	Understand	1	1,2
2	Analyze the application of AI in Electronic Design Automation (EDA) tools for logic synthesis, placement, routing, and PPA optimization.	Analyze	1	1,2,5
3	Apply AI techniques in functional verification, testing, and Design for Testability (DFT) for VLSI circuits.	Apply	2	2,4,5
4	Evaluate AI-driven approaches for defect detection, wafer inspection, and semiconductor yield prediction using machine learning and computer vision.	Evaluate	2	2,4,6
5	Design AI-optimized FPGA and ASIC architectures for deep learning, edge computing, and low-power applications.	Create	2	3,5,6

Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 7 (Affordable and Clean Energy)	No
SDG 8 (Decent work and economic growth)	
SDG 9 (Industry, Innovation, and Infrastructure)	
SDG 12 (Responsible Consumption and Production)	

TEXT BOOKS:

1. AI in Semiconductor Manufacturing and Design – Springer
2. VLSI Design Methodologies and AI – IEEE Transactions

REFERENCE BOOKS:

1. Machine Learning Applications in VLSI – Elsevier
2. Research Papers from IEEE, ACM
3. .**Andrew B. Kahng** – Research on AI-driven VLSI design methodologies.
4. **Swarup Bhunia & Mark Tehranipoor** – AI in hardware security and VLSI testing.
5. **Kaushik Roy** – Machine learning applications in VLSI circuits.
6. **Giovanni De Micheli** – AI-enhanced CAD tools for semiconductor design

Image



https://www.google.com/search?q=AI+in+VLSI+design+image&oq=AI+in+VLSI+design+image&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIHCAEQIRigATIHCAIQIRigATIHCAMQIRifBTIHCAQQIRifBdIBCdu5NDBqMGo3qAIA&sourceid=chrome&ie=UTF-8#vhid=sx3T95vJXMSm5M&vssid=_f7vkZ8ekDaSZseMP097NsAU_44

IoT Architecture

Hours per week:

L	T	P	SL	C
2	2	2	2	4

PREREQUISITE KNOWLEDGE: CN

COURSE DESCRIPTION AND OBJECTIVES:

This course introduces the Architecture of IoT, basic concepts of IoT architectures and IoT Levels. The Course emphasizes the constraints, requirements, and architectures of hardware and software components for IoT systems. By the end of the course, a student will be able to develop IoT solutions based on popular hardware/software platforms to address real-life problems and evaluate the cost, power, and performance trade-offs associated with IoT solution.

MODULE-1

12L+12T+12P+12SL=48 Hours

UNIT-1: INTRODUCTION

Introduction: Applications, Characteristics of IoT, Physical Design of IoT, Logical Design of IoT.

UNIT-2: IoT PHYSICAL DEVICES AND END POINTS

IoT Levels, Arduino, ESP8266, Exemplary Device- Raspberry Pi, Interfaces and Other IoT devices.

PRACTICES:

- Familiarization with Arduino boards and ESP8266.
- Interfacing of LED and switch with Arduino boards and ESP8266.
- Traffic Light control using Arduino board and ESP8266.
- Interfacing DHT11 sensor with Arduino board and ESP8266.
- Interfacing of ultrasonic sensor with Arduino board and ESP8266.

MODULE-2

18L+18T+18P+18SL=72 Hours

UNIT-1: INTERNET PRINCIPLES & M2M

Internet Principles: Internet communications: IP addresses, MAC addresses, TCP and UDP ports, Application layer protocols; Python packages of interest for IoT.

M2M: Introduction to M2M, M2M architecture, Difference between IoT and M2M, SDN and NFV for IoT. The IoT Architectural Reference Model as Enabler,

UNIT-2: IOT ARCHITECTURE AND PROTOCOLS

IoT Reference Architecture: Architecture, Functional, information, deployment and operation views; SOA based Architecture, API-based Architecture, OPEN IoT Architecture for IoT/Cloud Convergence. Application Protocols for IoT: UPnP, CoAP, MQTT, XMPP. SCADA, WebSocket; IP-based protocols: 6LoWPAN, RPL; Authentication Protocols; IEEE 802.15.4.

UNIT-3 IOT REFERENCE ARCHITECTURE

IIoT Architecture: The IIC Internet Reference Architecture, Industrial Internet Architecture Framework (IIAF), Architectural Topology, The Three-Tier Topology, Connectivity, Key System Characteristics, Data Management.

DESIGNING INDUSTRIAL INTERNET SYSTEMS: The Concept of the IIoT, The Proximity Network, WSN Edge Node, Legacy Industrial Protocols, Modern Communication Protocols, Wireless Communication Technologies, Proximity Network Communication Protocols.

PRACTICES:

- Familiarization of Arduino with MQTT.
- Interfacing of LED and switch with Raspberry pi.
- Interfacing PIR, Ultrasonic sensor with ESP8266 and cloud.
- To interface Bluetooth with Arduino/Raspberry Pi and write a program to send sensor data to the smartphone using Bluetooth.
- To interface node MCU with Arduino/Raspberry Pi and write a program to send sensor data to the smartphone using Blynk Application/Cloud.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1.	Understand the fundamental concepts, characteristics, and enabling technologies of IoT.	Understand	1, 2, 3
2.	Build the IoT Design with sensors and actuators and analyse the levels of Arduino programming language.	Apply	1, 2, 5
3.	Analyze Internet principles, communication protocols, and M2M concepts for IoT networking.	Analyze	1, 2, 3, 5, 11
4.	Make use of sensors for collection data from the physical medium.	Apply	1, 2, 3, 5, 8, 11
5.	Evaluate cloud platforms, virtualization, and IoT data management techniques.	Evaluate	1, 2, 3, 5, 8, 9, 11
6.	Develop IoT applications.	Apply	1, 2, 3, 5, 7, 8, 9, 11

SDG MAPPING

(Course Contents Related SDGs Description)

Unit/Topic	SDG	Connection to SDG
Definition and Characteristics of IoT	SDG 9: Industry, Innovation, and Infrastructure	Promotes innovation in industry through IoT applications.
Sensors and Actuators	SDG 11: Sustainable Cities and Communities	Enables smart, sustainable urban solutions.
IoT Physical Design	SDG 12: Responsible Consumption and Production	Facilitates efficient and sustainable resource utilization.
IoT Logical Design	SDG 9: Industry, Innovation, and Infrastructure	Advances technological infrastructure.
IoT Enabling Technologies	SDG 4: Quality Education	Encourages education in modern technologies.
IoT Levels and Devices	SDG 9: Industry, Innovation, and Infrastructure	Enhances the integration of IoT devices for better efficiency.
Internet Principles	SDG 17: Partnerships for the Goals	Supports connectivity and collaboration across platforms.
M2M, IIAF and IIC	SDG 9: Industry, Innovation, and Infrastructure	Bridges technology for sustainable development.

TEXT BOOKS:

1. Vijay Madiseti, Arshdeep Bahga, "Internet of Things A Hands-On- Approach", 2014..
2. Giacomo Veneri; Antonio Capasso, "Hands-on Industrial Internet of Things : create a powerful Industrial IoT infrastructure using Industry 4.0", ,Packt Publishing, 2018

REFERENCEBOOKS:

1. M. Olivier Hersent, David Boswarthick, Omar Elloumi – The Internet of Things: Key Applications and Protocols, Wiley, 2nd Edition, 2021..
2. Pethuru Raj, Anupama C. Raman – The Internet of Things: Enabling Technologies, Platforms, and Use Cases, CRC Press, 2017.
3. Brett McLaughlin – Making Sense of IoT: Connecting the Digital and Physical Worlds, O'Reilly Media, 2021.
4. Bassi, Alessandro, et al, "Enabling things to talk", Springer-Verlag Berlin An, 2016.
5. David Hanes, Gonzalo Salgueiro, Patrick Grossetete, Robert Barton, Jerome Henry, "IoT Fundamentals: Networking Technologies, Protocols, and Use Cases for the Internet of Things", CISCO Press, 2017
6. Hersent, Olivier, David Boswarthick, and Omar Elloumi. The internet of things: Key applications and protocols. John Wiley & Sons, 2011.
7. Buyya, Rajkumar, and Amir Vahid Dastjerdi, eds. Internet of Things: Principles and paradigms. Elsevier, 2016
8. Alasdair Gilchrist, "Industry 4.0: The Industrial Internet of Things" by, ISBN: 978-1-4842-2046-7, APRESS, 2016.

9. Francis daCosta, "Rethinking the Internet of Things: A Scalable Approach to Connecting Everything", 1st Edition, Apress Publications, 2013

SKILLS:

- Understand the fundamentals of IoT, including its physical and logical design.
- Learn about IoT hardware platforms such as Arduino, ESP8266, and Raspberry pi.
- Interface sensors like dht11, ultrasonic, and PIR with microcontrollers
- Analyze Internet Principles, Communication Protocols, and M2M architecture

Image source: OpenAI, *A Conceptual Illustration of the Internet of Things (IoT)*, AI-generated image, DALL·E, 2022



(SUBJECT CODE) – MEMS & NEMS: DESIGN AND FABRICATION

Hours per week:

L	T	P	SL	C
2	2	2	2	4

PREREQUISITE KNOWLEDGE: Solid-State Physics, Semiconductor Devices, Engineering Materials

COURSE DESCRIPTION AND OBJECTIVES:

Course Description:

This course provides a comprehensive understanding of **Microelectromechanical Systems (MEMS) and Nanoelectromechanical Systems (NEMS)**, their fabrication technologies, and design principles. It covers fundamental concepts, scaling laws, transduction mechanisms, and device modeling. Students will gain hands-on experience with simulation tools for designing and analyzing MEMS/NEMS device.

Course Objectives:

1. Develop a strong understanding of fundamental principles and applications of MEMS/NEMS.
2. Analyze scaling laws, material properties, and fabrication techniques in micro and nano systems.
3. Design and simulate MEMS sensors and actuators using industry-standard simulation tools.
4. Evaluate transduction mechanisms and actuation methods through design exercises.
5. Address integration, packaging, and reliability challenges through case studies and hands-on practices.

MODULE-1

12L+12P+12SL=36 Hours

UNIT-1: INTRODUCTION TO MEMS & NEMS

Overview, Definitions, Comparisons, Advantages & Limitations, Applications (automotive, biomedical, aerospace, telecommunications), Scaling Laws (geometry, electromagnetic forces, fluid mechanics, heat transfer)

UNIT-2: MEMS FABRICATION TECHNOLOGIES

Photolithography, E-beam Lithography, Deposition Techniques (CVD, PVD, ALD), Etching Techniques (wet etching, dry etching – RIE, DRIE, plasma etching), Micromachining Processes (bulk micromachining, surface micromachining, LIGA, MUMPS)

TRANSACTIONS:

- Calculate the critical dimensions of a MEMS structure using scaling laws.
- Analyze and compare the resolution limits of photolithography and e-beam lithography.
- Determine optimal deposition parameters for uniform thin films in CVD processes.
- Evaluate differences in etch profiles between wet etching and dry etching (RIE/DRIE).
- Compare bulk micromachining versus surface micromachining for a given MEMS sensor design.

PRACTICES:

- Simulate a photolithography process to observe the impact of exposure parameters.
- Perform a deposition process simulation to study film uniformity and growth rate.
- Design and simulate an etching process to analyze etch profiles under different conditions.
- Develop a MEMS device layout design.
- Simulate a complete fabrication sequence (lithography, deposition, etching) with varying parameters.

MODULE-2

18L+18P+18SL=54 Hours

UNIT-1: MICRO SENSORS & ACTUATORS

Acoustic Wave Sensors, Vibratory Gyroscopes, Capacitive Pressure Sensors, Thermal Actuators, Piezoelectric Actuators, Shape Memory Alloy Actuators, Electrostatic Actuation, Case Study: Piezoelectric Energy Harvester

UNIT-2: NANO DEVICES AND QUANTUM MECHANICS

Atomic Structures, Energy Levels, Quantum Mechanics (Schrödinger Equation), Nano Devices (ZnO Nanorod-based Gas Sensors), Applications of Carbon Nanotubes and Graphene in NEMS

UNIT-3: PACKAGING, MODELING & SIMULATION

MEMS Packaging (hermetic sealing, wafer-level packaging, flip-chip technology), Modeling & Simulation (Finite Element Analysis), Simulation Tools (COMSOL, ANSYS, CoventorWare, IntelliSuite), Case Study: RF MEMS Switch

TRANSACTION HOURS:

- Analyze performance metrics of a capacitive MEMS pressure sensor.
- Compute the resonant frequency and sensitivity of a vibratory gyroscope.
- Derive a quantum mechanical model for a ZnO nanorod-based gas sensor.
- Compare force outputs and response times of piezoelectric, electrostatic, and thermal actuators.
- Evaluate design trade-offs in MEMS packaging (hermetic sealing versus wafer-level packaging).

PRACTICES:

- Design and simulate a MEMS capacitive pressure sensor to assess its performance.
- Model a MEMS actuator and compare different actuation techniques.
- Perform Finite Element Analysis (FEA) of a MEMS structure.
- Model a nano sensor based on ZnO nanorods, incorporating quantum effects.
- Simulate an RF MEMS switch to evaluate switching speed, reliability, and performance.

COURSE OUTCOMES

CO No.	Course Outcome	Bloom's Level	Mapping with POs
1	Understand fundamental principles, scaling laws, and applications of MEMS/NEMS.	Understand	1
2	Analyze and apply fabrication techniques and material properties in MEMS/NEMS design.	Analyze	1, 5
3	Design and simulate MEMS sensors and actuators using industry-standard simulation tools.	Apply	1, 2, 3, 5
4	Evaluate transduction mechanisms and actuation methods through design exercises.	Evaluate	1, 3, 4, 5, 7
5	Address integration, packaging, and reliability challenges in MEMS/NEMS devices.	Evaluate	1, 2, 3, 5, 6, 7

Mapping of SDGs and IKS

Sustainable Development Goals (SDGs)	Indian Knowledge System (IKS)
SDG 3 (Good Health and Well-being)	Yes
SDG 9 (Industry, Innovation, and Infrastructure)	
SDG 11 (Sustainable Cities & Communities)	

TEXTBOOKS

1. Marc Madou, Fundamentals of Microfabrication, CRC Press, 1997.
2. Stephen D. Senturia, Microsystem Design, Kluwer Academic Publishers, 2001.

3. Tai-Ran Hsu, MEMS and Microsystems: Design and Manufacture, Tata McGraw-Hill, 2002..

REFERENCE BOOKS:

1. Chang Liu, Foundations of MEMS, Pearson Education India, 2006.
2. Sergey Edward Lyshevski, MEMS and NEMS: Systems, Devices, and Structures, CRC Press, 2002.
3. J.W. Gardner & V.K. Vardan, Micro Sensors MEMS and SMART Devices, John Wiley, 2002.
4. N. Maluf, Introduction to Micro Mechanical Systems Engineering, Artech House, 2000.

SKILLS

- Apply and analyze fundamental principles and scaling laws in the design and assessment of MEMS/NEMS devices.
- Evaluate and optimize microfabrication techniques and material properties to enhance device performance.
- Design, simulate, and analyze MEMS sensors and actuators using industry-standard simulation tools.
- Analyze and evaluate transduction mechanisms and actuation methods to ensure effective device operation.
- Synthesize integration, packaging, and reliability strategies to overcome challenges in MEMS/NEMS systems.

22ECXXX – Advanced Digital System Design with HDL

Hours per week:

L	T	P	SL	C
2	0	2	3	3

PREREQUISITE KNOWLEDGE: Digital Electronics, FPGA Based System Design.

COURSE DESCRIPTION AND OBJECTIVES:

To introduce students to advanced design methodologies and practical design approaches for high-performance applications. Students will design and implement a complete sophisticated digital system application, simulating and verifying the design with test benches, and synthesizing and implementing these designs with HDL

MODULE-1

12L+0T+12P+12SL=36 Hours

UNIT-1:

Data-path sub-systems

N-bit Parallel Adder/Subtractor, Carry Look Ahead Adder, 4-Bit Magnitude Comparator
Unsigned Array Multiplier, Booth Multiplier, Wallace Multiplier.

UNIT-2:

Sequential System Design

Synchronous Sequential Design: Design flow, FSM, State Diagram, ASM chart, few case studies.

Asynchronous Sequential Design: FSM, Flow Table, Analysis, few case studies.

PRACTICES:

- Design of Parallel Adder/Subtractor
- Design of Carry Look Ahead Adder/Carry Save Adders
- Design of Array Multiplier/ Booth Multiplier
- Design of Sequence detector

MODULE-2

18L+0T+18P+18SL=54 Hours

UNIT-1: FSM Design

Design of Vending Machine, Elevator, Synchronous and Asynchronous FIFO, LFSR.

UNIT-2: Implementation of Protocols

Introduction to protocols, Implementation of I2C, UART.

Unit 3: RTL to GDSII

Logic Synthesis, Logic Optimization, Static Timing analysis, Clock and I/O Constraints, Clock Tree Synthesis, Verification and Testing.

PRACTICES:

- Design of Vending Machine
- Design of Elevator
- Design of Vending LFSR
- Design of FIFO
- Implementation of UART
- Implementation of I2C

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mappingwith POs
1	Design and implement advanced data-path sub-systems such as adders, multipliers, and comparators using HDL.	Apply	1	1, 2, 3, 5, 9, 10
2	Analyze and develop synchronous and asynchronous sequential circuits, including FSM-based system designs.	Analyze	1	1, 2, 3, 5, 9, 10
3	Develop and implement serial communication protocols like UART and I2C for embedded systems.	Apply	2	1, 2, 3, 4, 5, 6, 7, 9, 10
4	Implement real-world applications using FSM-based digital design techniques (e.g., Vending Machine, Elevator, Sequence Detector).	Apply	2	1, 2, 3, 4, 5, 9, 10
5	Understand and perform RTL to GDSII flow, including logic synthesis, timing analysis, and verification techniques.	Understand	2	1, 2, 3, 4, 5, 6, 7, 9, 10

SDGs	IKS
SDG 8 (Decent Work and Economic Growth) SDG 9 (Industry, Innovation, and Infrastructure) SDG 11(Sustainable Cities and Communities) SDG 12 (Responsible Consumption and Production)	

Text Books:

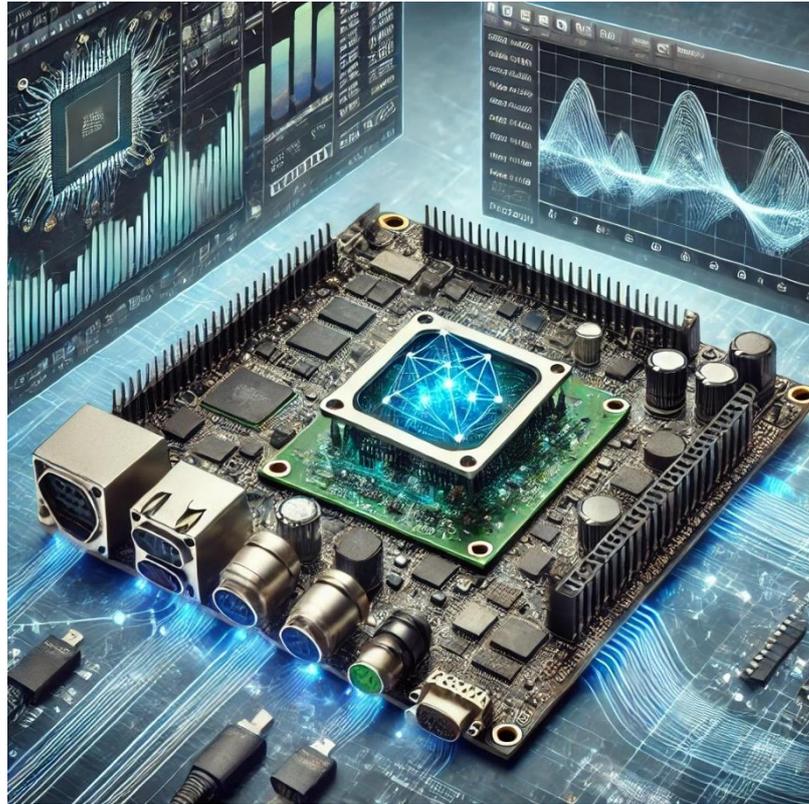
1. Michael D Ciletti, Advanced Digital Design with the Verilog HDL, Prentice Hall, Second Edition, 2017.
2. Wayne Wolf, FPGA Based System Design, Prentices Hall Modern Semiconductor Design Series, 2011.

Reference Books:

1. Ming-Bo Lin, Digital Systems Design and Practice: Using Verilog HDL and FPGAs, Create Space Independent Publishing Platform, Second Edition, 2015.
2. Digital System Design with FPGA: Implementation Using Verilog and VHDL by CemUnsalan, Bora Tar, ISBN: 9781229837906, McGrawHill Publications.
3. Designing with Xilinx FPGAs using Vivado, Editor, Sanjay Churiwala, Springer 2016.
4. Charles H Roth Jr, Lizy Kurian John and ByeongKil Lee Digital Systems Design using Verilog, Cengage Learning, First Edition, 2016.
5. Steve Keckler and oliver Franza, Asynchronous Circuit Design, Wiley, Second Edition, 2004.
6. Chris J Myers, Asynchronous Circuit Design, Wiley, Second Edition, 2004.
7. ZviKohavi and Niraj K.Jha, "Switching and Finite Automata Theory", 3rd edition, Cambridge University Press, 2010.
8. M.J.S. Smith, "Application-specific integrated circuits", Addison-Wesley, 1997.
9. NPTEL course, VLSI Design Flow: RTL to GDS, https://onlinecourses.nptel.ac.in/noc23_ee137/preview

SKILLS:

- Digital Circuit Design & FSM Implementation using HDL.
- Develop Verilog/VHDL code, testbenches, and verify digital circuits for functional correctness.
- Implement protocols and perform RTL synthesis, timing analysis, and optimization for FPGA designs.



22ECXX – TESTING OF VLSI CIRCUITS

Hours per week:

L	T	P	SL	C
3	0	2	3	4

PREREQUISITE KNOWLEDGE: VLSI Design.

COURSE DESCRIPTION AND OBJECTIVES:

This course imparts knowledge on various types of faults, fault detection techniques and dominance. The objective of this course is to introduce the student to the concepts of test generation for combinational and sequential circuits and other VLSI circuit testing methods like DFT schemes, BIST and BILBO.

MODULE-1

18L+0T+12P+18SL=48 Hours

UNIT-1: DIGITAL VLSI TESTING:

Introduction to Digital VLSI Testing, Functional and Structural Testing, Fault Equivalence, Fault dominance, Fault Simulation, Fault Models and Testability Measures.

UNIT-2: TEST GENERATION TECHNIQUES:

Introduction to Automatic Test Pattern Generation (ATPG) and ATPG Algebras, D Algorithm, PODEM, FAN, Test Generation for Sequential Circuits, Scan-Based Testing, BIST (Built-in Self-Test), Scan Chains and Scan Design

PRACTICES:

- Design and simulate logic gates. Perform fault simulations (stuck-at faults). Test the gates using fault models and check for correct operation.
- Simulate a given circuit with faults and analyze the test coverage. Implement and analyze test patterns for stuck-at faults using ATPG (Automatic Test Pattern Generation).
- Design and simulate different types of flip-flops (D, JK, T). Create test benches and simulate timing and functional behavior. Perform fault analysis on sequential circuits.
- Apply D-algorithm or PODEM (Path-Oriented Decision Making) algorithm to generate test vectors. Verify the test vectors on the designed circuit. Perform fault simulation to check test coverage.

MODULE-2

27L+0T+18P+27SL=72 Hours

UNIT-1: DESIGN FOR TESTABILITY (DFT):

Introduction to DFT, Need for DFT in VLSI, Scan Design: Full Scan, Partial Scan, and Scan Flip-Flops

UNIT-2: TESTABLE DESIGN ARCHITECTURES:

Pattern Generators, Estimation of test length, Test points to improve testability, Analysis of aliasing in linear compression, BIST methodologies, BIST for delay fault testing, Testable

memory design, Test algorithms, Test generation for embedded RAMs, Structural Testing Techniques, Testable Fault Models, Test Pattern Compression.

UNIT-3: FAULT DIAGNOSIS:

Logical level diagnosis, Diagnosis by UUT reduction, Fault diagnosis for combinational circuits, Self- checking design, System level diagnosis.

PRACTICES:

- Design a BIST circuit using a test pattern generator (TPG) and output response analyzer (ORA). Simulate the BIST functionality and analyze the test coverage.
- Insert scan flip-flops into a design and implement scan chains. Generate scan test patterns for fault simulation. Perform DFT (Design for Test) analysis on the scan-based design.
- Apply delay fault models and perform simulations to check the circuit's robustness. Analyze the delay fault coverage and test patterns.
- Implement multiplexers and de-multiplexers. Verify their functionality by applying test patterns. Perform fault simulation for possible stuck-at faults.
- Apply ATPG algorithms to generate optimal test patterns. Perform functional and fault simulation using the generated patterns. Analyze test coverage and detect faults in the design

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1.	Apply the concept of fault models to identify the faults and fault location.	Apply	1, 2, 4, 5, 8, 9, 11
2.	Analyze the Generation of test patterns for the given combinational, sequential circuits with built in self-test.	Analyze	1, 2, 5, 8, 9
3.	Test the fault diagnosis by UUT reduction techniques in combinational circuits and systems.	Apply	1, 2, 3, 5, 8, 9
4.	Develop self-checking designs for fault tolerant systems.	Apply	1, 2, 5, 8, 9, 11

Mapping of SDGs and IKS

Sustainable Development Goals (SDGs)
SDG 9 (Industry, Innovation, and Infrastructure)
SDG 11 (Sustainable Cities & Communities)

TEXT BOOKS:

1. M.L.Bushnell and V.D.Agrawal, “Essentials of Electronic Testing for Digital, Memory and Mixed-Signal VLSI Circuits”, 2nd edition, Kluwer Academic Publishers, 2012.
2. M.Abramovici, M.A.Breuer and A.D. Friedman, “Digital systems and Testable Design”, 2nd edition, Jaico Publishing House, 2012.

REFERENCEBOOKS:

1. P.K. Lala, “Fault Tolerant and Fault Testable Hardware Design”, 3rd edition, Academic Press, 2012.
2. A.L.Crouch, “Design Test for Digital IC’s and Embedded Core Systems”, 5th edition, Prentice Hall International, 2009.
3. <http://nptel.ac.in/courses/106103016/30>.

SKILLS:

- Identify various faults in any circuit.
- Analyze different test patterns for combinational and sequential circuits.
- Design and investigate self-checking circuits.

Image source: <https://studybullet.com/udemy/introduction-to-testing-of-vlsi-circuits-fault-modeling/>

Image file name:



Honors

22ECXXX – MEMORY DEVICES

Hours per week:

L	T	P	SL	C
3	2	0	3	4

PREREQUISITE KNOWLEDGE: Digital Electronics, VLSI Design

COURSE DESCRIPTION AND OBJECTIVES:

This course provides an in-depth study of memory devices, covering fundamental principles, architectures, and emerging trends in memory technology. It explores the classification, operation, and performance characteristics of various semiconductor memory types. It also covers key aspects of memory subsystem design, advanced topics, security mechanisms, error correction techniques and next-generation memory innovations.

MODULE-1

18L+12T+0P+18SL=48 Hours

UNIT-1: INTRODUCTION TO SEMICONDUCTOR MEMORY

Basics of Memory systems, Classification of memory: Volatile Vs Non-Volatile, Memory Hierarchy in Computing, Semiconductor Memory Technologies Overview, RAM (SRAM, DRAM) and ROM (PROM, EPROM, EEPROM).

UNIT-2: STATIC AND DYNAMIC MEMORIES

Static RAM (SRAM): Structure, Operation, Design, and Applications; Dynamic RAM (DRAM): Structure, Operation, Refresh Mechanism, and Applications; SRAM vs DRAM Comparative Analysis

PRACTICES:

- Design of SRAM
- Design of DRAM
- Comparative Analysis of SRAM and DRAM
- Design of EPROM & EEPROM

MODULE-2

27L+18T+0P+27SL=72 Hours

UNIT-1: NON-VOLATILE MEMORY TECHNOLOGIES

Read Only Memories: ROM, PROM, EPROM, EEPROM; Flash Memory: NOR and NAND Flash; Emerging Non-Volatile Memories: FeRAM, MRAM, ReRAM; Applications of Non-Volatile Memories in Embedded Systems..

UNIT-2: ADVANCED MEMORY ARCHITECTURES AND DESIGN

Cache Memory: Concept, Mapping Techniques; Virtual Memory: Paging and Segmentation; Multi Level Memory Systems; High Density Memory Design and Power Consumption Considerations.

UNIT-3: MEMORY TESTING AND APPLICATIONS

Memory Testing and Fault Diagnosis, Security in Memory Systems (Error Correction Codes - ECC), Future of Memory Technology.

PRACTICES:

- Design of Flash memory
- Design of MRAM
- Design of ReRAM
- Error correction in memories

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs
1.	Understand the Fundamentals of Memory Systems	Understand	1, 2, 5
2.	Analyze Semiconductor Memory Technologies	Analyze	1, 2, 3, 4, 5, 11
3.	Apply Memory Subsystem Design Principles	Apply	1, 2, 3, 5, 11
4.	Develop Skills in Memory Testing and Security	Create	1, 2, 3, 5, 11

Mapping of SDGs and IKS

Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 8 (Decent Work and Economic Growth)	No
SDG 9 (Industry, Innovation, and Infrastructure)	

TEXT BOOKS:

4. Jacob, B., Ng, S., & Wang, D, "Memory Systems: Cache, DRAM, Disk, Morgan Kaufmann, 2007.
5. Sharma, A.K, "Semiconductor Memories: Technology, Testing and Reliability, Wiley, 1997.
6. William D. Brown & Joe Brewer, "Nonvolatile Semiconductor Memory Technology: A Comprehensive Guide to Understanding and using NVSM Devices, Wiley-IEEE Press, 1997.

7. Betty Prince, "High Performance Memories: New Developments and Future Directions, Wiley, 1999.

REFERENCEBOOKS:

17. Kartikeya Pande and Bapiraju Vinnakota, "Computer Memory Design and Testing, Prentice Hall, 1996.
18. Fujio Masuoka, "Non-Volatile Memory Technologies with Emphasis on Flash, Wiley, 2010.

SKILLS:

- Understand various semiconductor memory architectures.
- Ability to analyze different memory technologies based on speed, power, and cost.
- Design of memory modules and subsystems.

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22XXXXX – ANALOG IC DESIGN

Hours per week:

L	T	P	SL	C
3	0	2	3	4

PREREQUISITE KNOWLEDGE: Analog Circuits, VLSI Design.

COURSE DESCRIPTION AND OBJECTIVES:

This course covers the analysis and design of analog integrated circuits starting from basic building blocks to different implementations of the amplifiers in CMOS technology.

MODULE-1

18L+0T+12P+18SL=48 Hours

UNIT-1: CMOS Device Fundamentals and Current Mirrors:

CMOS Device Fundamentals: Basic MOS models, device capacitances, parasitic resistances, substrate models, transconductance, output resistance, frequency dependence of device parameters.

Current Mirrors: CMOS current mirror, Source degenerated current mirror, High output impedance current mirrors.

UNIT-2: Single stage amplifiers:

Common source amplifier, common drain amplifier or source follower, Common gate amplifier, Cascode gain stage, MOS differential pair, Differential Amplifiers.

PRACTICES:

Design and simulate the following analog circuits.

- Verify the characteristics of nMOS and pMOS devices.
- Current Mirror and Cascode Current Mirror circuits
- Common Source, Common Drain and Common Gate Amplifiers
- Differential Amplifier

MODULE-2

27L+0T+18P+27SL=72 Hours

UNIT-1: Frequency Response of Amplifiers:

Miller effect, Common Source amplifier, Source follower amplifier, Common gate amplifier, Cascode gain stage.

UNIT-2: Noise in Amplifiers

Introduction to noise in electronic circuits, Types of noise: Thermal noise, shot noise, flicker (1/f) noise, Noise models of resistors and MOS transistors, Input-referred noise and output noise calculations, Noise in single-stage and multi-stage amplifiers.

UNIT-3: CMOS Operational Amplifiers:

Classification of Op Amps, Design of one stage and two stage Opamps, Gain boosting techniques, Folded cascode amplifier, Telescopic cascode amplifier and Common mode feedback (CMFB) amplifier, Opamp specification analysis, stability, and frequency compensation.

PRACTICES:

Design and simulate the following analog circuits.

- CMOS Op-amp single Stage
- Two stage operational amplifier
- Folded cascode amplifier
- Telescopic cascode amplifier

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mappingwith POs
1	Design basic building blocks of analog ICs.	Understand	1	1, 9
2	Design optimal single stage amplifiers for various applications	Apply	1	1, 3, 5, 9
3	Modelling circuits with noise elements	Apply	2	1, 3, 9
4	Analyze the frequency response of amplifiers	Analyze	2	1, 2, 3, 5, 9
5	Develop a procedure for optimal compensation of op-amp against process, supply and temperature variations	Apply	2	1, 2, 5, 9,11
5			2	

Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 8 (Decent work and economic growth)	No
SDG 9 (Industry, Innovation, and Infrastructure)	

TEXT BOOKS:

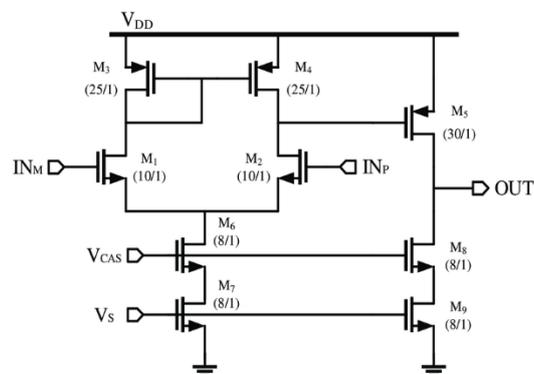
1. Behzad Razavi, "Design of Analog CMOS integrated circuits", McGraw-Hill International edition, 2001.
2. D. A. Johns and Martin, Analog Integrated Circuit Design, John Wiley, 1997.

REFERENCE BOOKS:

1. R Gregorian and G C Temes, Analog MOS Integrated Circuits for Signal Processing, John Wiley, 1986.
2. R L Geiger, P E Allen and N R Strader, VLSI Design Techniques for Analog & Digital Circuits, McGraw Hill, 1990.
3. Gray, Wooley, Brodersen, "Analog MOS Integrated circuits", IEEE press, 1989.
4. Alan B. Grebene, "Bipolar and MOS Analog Integrated Circuit Design", Wiley, 2002.

SKILLS:

- Identify and analyze various Current mirror circuits.
- Design of differential amplifier.
- Analyze the frequency response of amplifiers.



<https://www.planetanalog.com/wp-content/uploads/Fig-1-OTA-ResearchGate.png>

22ECXXX – Digital IC Design

Hours per week:

L	T	P	SL	C
2	0	2	2	3

PREREQUISITE KNOWLEDGE: Digital Electronics, VLSI Design.

COURSE DESCRIPTION AND OBJECTIVES: This course bridges circuits and system-level digital design, starting with CMOS inverter and advancing to complex digital circuits in line with modern technology trends. With a strong focus on design, it begins with basic specifications and builds up to system-level blocks.

MODULE-1

12L+0T+12P+12SL=36 Hours

UNIT-1: DESIGN OF CMOS INVERTER

CMOS Inverter: Introduction to MOS transistor, V-I Characteristics, Electrical Parameters, Static behavior, switching Threshold, Noise Margins, Robustness revisited, Dynamic behavior: Computing the capacitances, propagation delay, propagation delay from a design perspective, power, energy and energy delay.

UNIT-2: DESIGN OF CMOS COMBINATIONAL CIRCUITS

Combinational Logic Design: Introduction, Static CMOS Design: Complementary CMOS, ratioed logic, pass transistor logic dynamic CMOS Design: Dynamic logic, speed and power dissipation of dynamic logic, signal integrity issues in Dynamic design, cascading dynamic gates.

PRACTICES:

- Design of Inverter and all logic gates
- Design and Simulation of Full adder
- Design and Simulation of Serial Binary Adder, Carry Look Ahead Adder.
- Design of pseudo logic gates
- Design of DCVSL logic gates

MODULE-2

18L+0T+18P+18SL=54 Hours

UNIT-1: DESIGN OF CMOS SEQUENTIAL CIRCUITS

Sequential Logic Design: Introduction, static latches and registers: The Bi-stability principle, multiplexer based latches, master-slave edge-Triggered register, low-voltage static latches, Static SR Flip-flop, dynamic latches and registers, dynamic transmission, Gate Edge - triggered registers, CMOS NORACMOS True single - phase clocked register (TSPCER).

UNIT-2: TIMING ANALYSIS

Timing Issues in Digital Circuits: Introduction, Timing classification of digital systems, synchronous design, Self-Timed circuit design, synchronizers and arbiters.

UNIT-3: DESIGNING ARITHMETIC BUILDING BLOCKS AND MEMORIES

Datapaths in digital processor architecture, adder, **vedic** multiplier, shifter, ROM, nonvolatile Read-Write memories, SRAM, DRAM, CAM

PRACTICES:

- Design of static flip flops
- Design of dynamic shift register
- Design of edge triggered registers
- Design of D flipflop using TSPCER
- Design of adder
- Design of multiplier
- Design of shifter
- Design of SRAM cell
- Design of DRAM cell

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mappingwith POs
1	Design CMOS inverters with specified noise margin and propagation delay.	Apply	1	1,2,5, 9,10
2	Implement efficient techniques at combinational circuit level for improving power and speed of digital circuits	Apply	1	1,2,3,4,5, 9,10
3	Design CMOS sequential circuits	Apply	2	1,2,3,4,5, 9,10
4	Analyze timing constraints in VLSI systems.	Understand	2	1,2,3,5, 9,10
5	Design arithmetic circuits and memories	Apply	2	1,2,3,4,5, 9,10

SDGs	IKS
SDG 7 (Affordable and Clean Energy) SDG 9 (Industry, Innovation, and Infrastructure)	Vedic Mathematics

TEXT BOOKS:

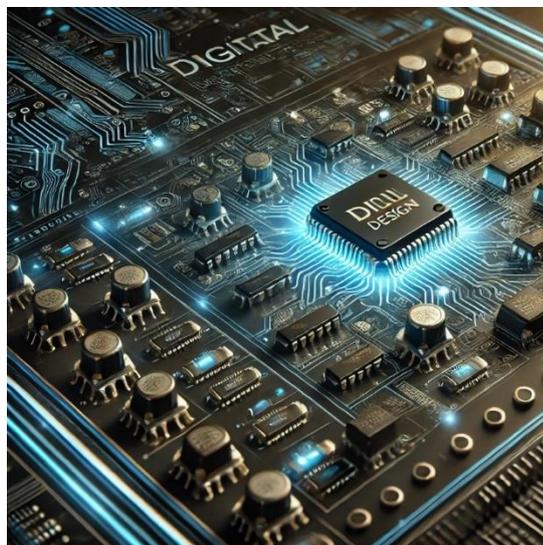
1. Jan M. Rabaey, Anantha Chandrakasan and Borivoje Nikolic., Digital Integrated Circuits: A Design Perspective, Second Edition, Pearson Education India, 2003
2. Ken Martin, Digital Integrated Circuit Design, Oxford University Press, 1st edition, 1999.

REFERENCE BOOKS:

1. Neil H. E. Weste and D. M. Harris, CMOS VLSI Design, Third Edition, 2010. 2. Sung-Mo Kang, CMOS Digital Integrated Circuits, 3rd Edition, McGraw-Hill, 2003.
2. IEEE Trans Electron Devices, IEEE J.Solid State Circuits, and other National and International Conferences and Symposia.

SKILLS:

- Identify various cmos logics to design combinational circuits.
- Design CMOS based sequential circuits.
- Analyze the timing constraints in the VLSI designs.



22XXXXX – ASIC DESIGN

Hours per week:

L	T	P	SL	C
3	2	0	3	4

PREREQUISITE KNOWLEDGE: VLSI Design.

COURSE DESCRIPTION AND OBJECTIVES:

To prepare the student to be an entry-level industrial standard ASIC or FPGA designer. To give the student an understanding of issues and tools related to ASIC/FPGA design and implementation. To give the student an understanding of basics of System on Chip and platform-based design.

MODULE-1

18L+12T+0P+18SL=48 Hours

UNIT-1: INTRODUCTION TO ASICS

Types of ASICs, Design flow, CMOS transistors, CMOS Design rules, Combinational logic Cell, Sequential logic cell, Transistor as Resistors, Transistor parasitic capacitance, Logical effort, Library cell design, Library architecture.

UNIT-2: Programmable ASICs

Anti fuse, Static RAM, EPROM and EEPROM technology, PREP benchmarks, Actel ACT, Xilinx LCA, Altera FLEX, Altera MAX DC & AC inputs and outputs, Xilinx I/O blocks.

Practices

- Logic effort
- Design SRAM Cell.
- Analyze different ROM memories.
- Comparative analysis of programmable ASICs

MODULE-2

27L+18T+0P+27SL=72 Hours

UNIT-1: TRADE OFF ISSUES AT SYSTEM LEVEL

Optimization with regard to speed, area and power, asynchronous and low power system design. ASIC physical design issues, Power Dissipation.

UNIT-2: ASIC physical design

System Partitioning, Partitioning Methods, ASIC floor planning, Placement and Routing.

UNIT-3: HIGH PERFORMANCE ALGORITHMS FOR ASICs AS CASE STUDIES

Canonic Signed Digit Arithmetic, KCM, Distributed Arithmetic, High performance digital filters for sigma-delta ADC.

PRACTICES:

- Design memories using different power reduction techniques.
- Analyze different floor planning techniques.

- Analyze different placement techniques to optimize area.
- Analyze different routing techniques to optimize speed.
- Canonic Signed Digit Arithmetic
- KCM

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Recognize the need for programmable devices and demonstrate VLSI tool-flow	Understand	1	1
2	Able to utilize FPGA architecture	Apply	1	1, 2, 3, 5
3	Identify the issues involved in ASIC design, including technology choice, design management, tool-flow, verification, debug and test, as well as the impact of technology scaling on ASIC design.	Apply	2	1, 2, 4, 5, 11
4	Develop the algorithms used for ASIC construction.	Apply	2	1, 2, 3, 5, 11
5	Analyze high performance algorithms available for ASICs IC.	Analyze	2	1, 2, 3, 11

Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 8 (Decent work and economic growth)	No
SDG 9 (Industry, Innovation, and Infrastructure)	

TEXT BOOKS:

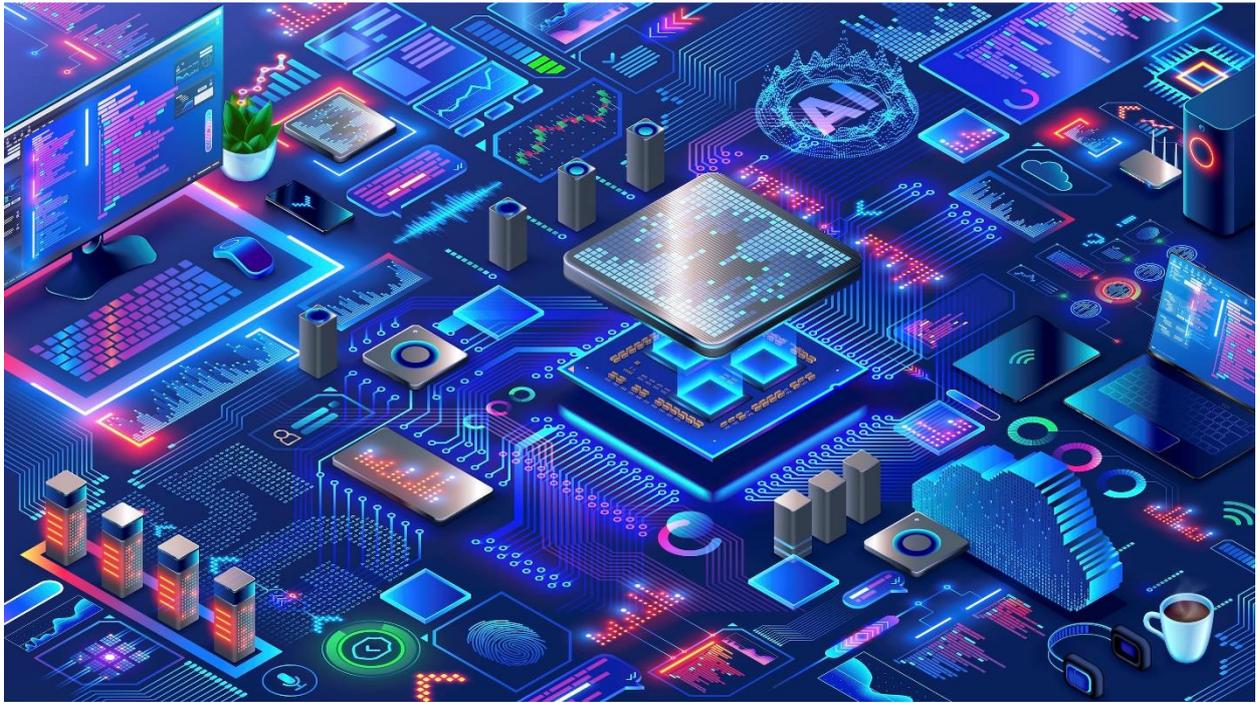
1. M.J.S. Smith, "Application Specific Integrated Circuits", Pearson, 2003
2. H.Gerez, "Algorithms for VLSI Design Automation", John Wiley, 1999.

REFERENCE BOOKS:

1. J..M.Rabaey, A. Chandrakasan, and B.Nikolic, "Digital Integrated
2. D.A.Hodges, "Analysis and Design of Digital Integrated Circuits (3/e)", MGH 2004.
3. Hoi-Jun Yoo, Kangmin Lee and Jun Kyong Kim, "Low-Power NoC for High-Performance SoC Design", CRC Press, 2008.

SKILLS:

- Design and verification techniques of digital ASICs.
- Apply knowledge on ASIC design flow.



<https://www.sondrel.com/blog/why-thinking-about-software-and-security-is-so-important-right-at-the-start-of-an-asic-design>

xxxxxxx – Nano Electronic Devices Modelling

L	T	P	SL	C
3	2	0	3	4

PREREQUISITE KNOWLEDGE: Basic knowledge of Solid-State Devices and VLSI

COURSE DESCRIPTION AND OBJECTIVES:

The goal of this course is to provide an insight into the fundamentals of Nanoscience and nanotechnology. The course provides basics of nanomaterials, quantum mechanics and statistical mechanics

MODULE-1

UNIT-1: Introduction to Nanotechnology [18L+12T+0P+18SL=48 Hours]

Importance and opportunities at the nanoscale, Length and time scales in nanostructures, Classification of nanostructures, Limitations of conventional microelectronics, Low-dimensional structures: Quantum wells, wires, and dots; Overview of Carbon Nanotubes (CNTs) and Graphene, Trends in microelectronics and optoelectronics

UNIT-II: Basic of Quantum Mechanics

Introduction to Quantum Mechanics - Schrodinger equation – time dependent and time independent equations. Solutions of the Schrodinger equation – free particle - particle in a box – one and three dimensions - particle in a finite well - Penetration through a barrier – Tunnel effect – Single step barrier.

TRANSACTIONS:

- Introduction to Nanotechnology & Its Importance
- Analyze Quantum Structures & Low-Dimensional Materials
- Solve Fundamentals of Quantum Mechanics & Schrodinger Equation with boundary conditions
- Solve particle in a 1-D box problem & Tunneling Phenomen

MODULE-2

UNIT-I : Mathematical Modelling for Electron

[18L+12T+0P+18SL=48

Hours]

Modelling: Charge transport in nanostructures under an electric field: Parallel and perpendicular transport, Hot electrons and quantum transport, Coulomb blockade effect, ; Charge transport in a magnetic field: Aharonov-Bohm effect, Shubnikov-de Haas effect, Quantum Hall effect

UNIT-II: Modelling for Electronics Device

MOSFETS, heterojunction bipolar transistors, Resonant tunnel effect, RTD, RTT, Hot electron transistors, Coulomb blockade effect and single electron transistor, CNT transistors,

UNIT-III: Modelling for Optoelectronics Device

Heterostructure semiconductor laser, Quantum well laser, quantum dot LED, quantum dot laser, Quantum well optical modulator, quantum well sub band photo detectors, principle of NEMS.

Course Outcomes

At the end of the course, the students should be able to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	The students will be able to understand basic concepts of nanoelectronics devices and nano technology	Understanding	1,2	1,2,3,4,11
2	To understand and familiarize the quantum, Mechanics.	Understanding	1,2	1,2,3,4,11
3	To provide the recent advancement of fabrication technologies	Application	1,2	1,3,4,5,11
4	To provide basic understanding of nanoelectronics devices.	Analysing	1,2	1.3,4,9,11

Mapping of SDGs and IKS

Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 9 (Industry, Innovation, and Infrastructure)	No
SDG 12 (Responsible Consumption and Production)	
SDG 7 (Affordable and Clean Energy)	

Skills:

- Understanding of Nanoelectronics & Quantum Mechanics
- Mathematical & Computational Modelling
- Device Physics & Design
- **Problem-Solving & Analytical Thinking**
- Application in Emerging Technologies

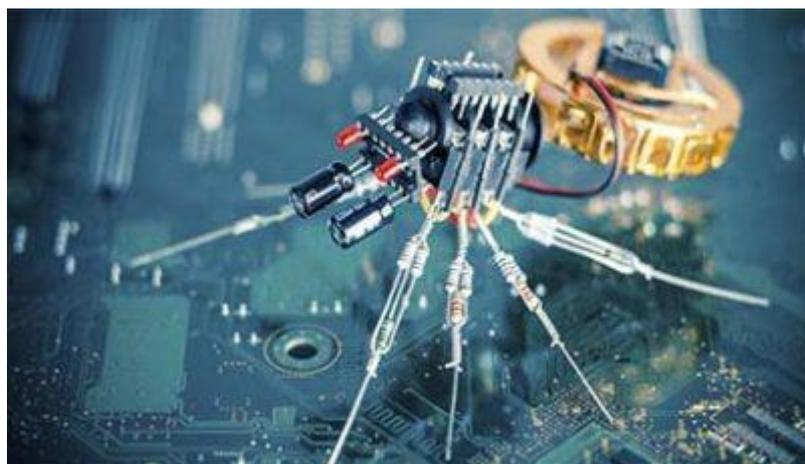
Books and References

Text Book:

1. T. Pradeep —A textbook of Nanoscience and Nanotechnology, Tata McGraw – Hill education private ltd, 2012.
2. David. J, Griffiths, —Introduction to Quantum Mechanics”, Pearson, 2009.

References

1. Chattopadhyay, Banerjee, Introduction to Nanoscience & Technology, PHI, 2012
2. George W. Hanson, Fundamentals of Nanoelectronics, Pearson Education, 2009.
3. K. Gosser, P. Glosekotter, J. Dienstuhl, Nanoelectronics and nanosystems, Springer 2004.



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22 EC XXX: Photovoltaic Device & Energy Conversion

L	T	P	SL	C
3	2	0	3	4

PREREQUISITE KNOWLEDGE:

- Semiconductor Physics, Electronics Device and Circuits

Course Description

- Learn fundamentals of solar cell technology
- Understand the working physics of different types of solar cells

Module 1

Unit-I: Fundamental of Solar cell-1

[18L+12T+0P+18SL=48 Hours]

Semiconductors and junctions, I-V characteristics of p-n junctions. Solar Cell Structure, Light generated Current, Light IV Characteristics, Solar cell parameters, Spectral Response and Quantum Efficiency, Effect of Series Resistances and Shunt Resistances on solar cell I-V characteristics, Effect of Temperature and Light Intensity, effect of shading, Losses in solar cells

Unit-II: Fundamental of Solar cell-2:

Generation recombination in semiconductors; Shockley, Read and Hall expression; Surface and interface recombination; Schockley-Queissser limit of efficiency

Transactions

- Understanding the fundamentals of solar energy conversion
- Analyzing the effects of material properties on PV performance
- Understanding semiconductor physics relevant to solar cells

Module-2

Unit-I: Manufacturing of solar cells:

[18L+12T+0P+18SL=48 Hours]

Cell Fabrication Technologies, Screen Printed Solar Cells, Buried Contact Solar Cells, High Efficiency Solar Cells, Rear Contact Solar Cells, Silicon Source Material, Wafers, Cleaning, Texturing, Diffusion, Plasma Etching Isolation, Anti- Reflection Coating, Screen-Printed front and rear contact,

Unit-II: Testing of silicon solar cells

Testing and Module fabrication, Solar simulator, measurement of efficiency of solar cell, External quantum efficiency (EQE) and Internal quantum efficiency (IQE) measurement, Quantum efficiency analysis, Lifetime measurement

Unit-III: Advanced Solar Cell

Organic solar cell:- Fundamentals and fabrication, Perovskite:- Fundamentals and fabrication technique, Dye synthesis solar cell:- Fundamentals and fabrication.

Transactions: -

- Fabrication and testing of PV devices
- Performance evaluation and loss analysis
- Understanding degradation mechanisms in PV systems
- Fabrication of perovskite solar cell

Course Outcomes

At the end of the course, the students should be able to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Students will gain knowledge of: the device physics of solar cells, the operating principles of the major commercial photovoltaic technologies.	Apply	1,2	1,3
2	Current challenges and primary areas of research within the field of photovoltaics, and a basic understanding of the role of photovoltaics in the context of the global energy system	Create	1,2	6,7,8,11
3	Student understand the fundamental and working of c-Si solar cell.	Understanding	1,2	1,2
4	Student can understand the new generation solar cells like organic, perovskite and dye-synthesis solar cell	Understanding	1,2	4,5
5.	Students can understand the fabrication steps of these advanced solar cells.	Understanding	1,2	3,5,8

Mapping of SDGs and IKS

Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 9 (Industry, Innovation, and Infrastructure)	No
SDG 12 (Responsible Consumption and Production)	
SDG 7 (Affordable and Clean Energy)	

Skills:

- How solar cell works
- How to fabricated solar
- Types of solar cells

Books and References

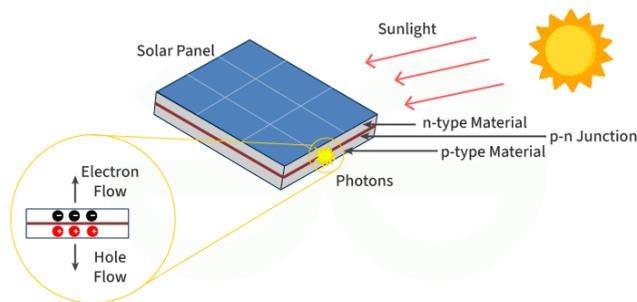
Text Book:

3. Solanki Chetan singh, Solar Photovoltaics,: Fundamentals, Technologies and Applications, ISBN-978-81- 203-3760-2, PHI Learning Pvt. Ltd., New Delhi

4. Bansal N.K., Photovoltaics Systems, ISBN 81-901296-0-0, Omega Scientific Publishers, New Delhi, 2003
5. Brendel R., Thin Film Crystalline Solar Cells: Physics and Technology, Wiley-VCH, Verlag GmbH and Company, Weinheim Germany, 2003
6. J N Roy and D N Bose: Photovoltaic Science and Technology, Cambridge University Press, 2018 Solid State Electronic Devices, Ben G Streetman & Banerjee

References

4. Green M.A., Silicon solar Cells: Advance Principles and Practices, Bridge RE Printrey, Sydney,1995
5. Green M.A., Solar Cells: Operating Principles, Technology and system Applications, Prentice Hall Incl. Engelwood Cliffs N.J., USA, 1982



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22VLXXXX– LOW POWER VLSI DESIGN

Hours per Week:

L	T	P	SL	C
3	2	2	2	4

PREREQUISITE COURSE: Basic VLSI Design, AICD & DICD.

COURSE DESCRIPTION AND OBJECTIVES: To understand the critical requirements and implementation of Low-power VLSI circuits. The course also covers critical issue related to continuous scaling of microelectronic circuits.

MODULE-1

[12L+12T+12P+12SL=48 Hours]

UNIT-1

Fundamentals of Low Power VLSI Design: Basic Principle of Low Power Design, Need for Low Power Circuit Design

Sources of Power Dissipation: Switching Power Dissipation, Short Circuit Power Dissipation, Leakage Power Dissipation, Glitching Power Dissipation

Short Channel Effects: Drain Induced Barrier Lowering and Punch Through, Surface Scattering, Velocity Saturation, Impact Ionization, Hot Electron Effect.

UNIT-2

For achieving low power: Hierarchy of Limits of Power, Switching activity reduction,

Power Optimization: Algorithmic Power optimization, Logic Level Power Optimization – Circuit Level Low Power Design – Gate Level Low Power Design –Architecture Level Low Power Design

Different logic styles: Static and dynamic logic, Clock gating, reducing glitching through path balancing, input reordering.

PRACTICES:

Design and simulate the logic circuits implementing the following low power techniques.

- ♣ VTCMOS.
- ♣ MTCMOS
- ♣ Transistor stacking.
- ♣ Power gating.

MODULE-2

[18L+18T+18P+18SL=72 Hours]

UNIT-1

Low-Voltage Low-Power Design Techniques: Reducing Power Consumption in Combinational Logic, Sequential Logic, Trends of Technology and Power Supply Voltage, Low-Voltage Low-Power Adders, Low-Voltage Low-Power Multipliers.

UNIT-2

Low-Voltage Low-Power Memories: Basics of ROM, Low-Power ROM Technology, Future Trend and Development of ROMs, Basics of SRAM, Memory Cell, Pre-charge and Equalization Circuit, Low Power SRAM Technologies, Basics of DRAM, Self-Refresh Circuit, Future Trend and Development of DRAM.

UNIT-3

Synthesis And Software Design for Low Power CMOS Circuits: Synthesis for Low Power – Behavioural Level Transform –Algorithms for Low Power – Software Design for Low Power.

PRACTICES:

- ♣ Design and simulate the following circuits.
- ♣ Low-Voltage Low-Power Adders
- ♣ Low-Voltage Low-Power Multipliers
- ♣ Low power SRAM
- ♣ Self-refresh circuit of DRAM

SKILLS:

- To design and analyse low power and low voltage circuits.
- To implement existing low power techniques to various designs.
- Able to develop new techniques to reduce power.

ACTIVITIES:

- Implement advanced low power techniques.
- Design of advanced adders and multipliers.
- Improve efficiency of memories in terms of power.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Acquires knowledge about the second order effects of MOS transistor characteristics.	Understanding	1	1, 2, 4, 5, 8, 9, 11
2	Analyse various CMOS low power design techniques and apply these approaches to various logic circuits.	Analyze	1	1, 2, 3, 4, 5, 8, 9
3	Design and implementation of computational structures for low power applications	Apply	2	1, 2, 3, 5, 8, 9
4	Analyse memories with efficient architectures to improve power.	Analyze	2	1, 2, 3, 5, 11
5	Synthesis the software design	Evaluate	2	6, 8, 11

Mapping of SDGs and IKS**Sustainable Development Goals (SDGs)**

SDG 9 (Industry, Innovation, and Infrastructure)

TEXT BOOKS:

1. CMOS Digital Integrated Circuits – Analysis and Design – Sung-Mo Kang, Yusuf Leblebici, TMH, 2011.
2. Low-Voltage, Low-Power VLSI Subsystems – Kiat-Seng Yeo, Kaushik Roy, TMH Professional Engineering.
3. Anantha P. Chandrakasan, and Robert W. Brodersen, Low Power Digital CMOS Design, Kluwer Academic Publications, 1995.

REFERENCES:

1. Kaushik Roy and S.C.Prasad, “Low Power CMOS VLSI Circuit Design”, Wiley, 2000
2. J.B.Kulo and J.H Lou, “Low Voltage CMOS VLSI Circuits”, Wiley 1999.
3. James B.Kulo, Shih-Chia Lin, “Low Voltage SOI CMOS VLSI Devices and Circuits”, John Wiley and Sons, Inc. 2001
4. J.Rabaey, “Low Power Design Essentials (Integrated Circuits and Systems)”, Springer, 2009.
5. Practical Low Power Digital VLSI Design – Gary K. Yeap, Kluwer Academic Press, 2002.

22EC--- THIN FILMS CHARACTERIZATION

Hours per week:4

L	T	P	SL	C
2	2	2	2	3

PREREQUISITE KNOWLEDGE: Semiconductor Physics and Devices

COURSE DESCRIPTION AND OBJECTIVES:

To understand about the difference between bulk and thin film, the optical, electrical, dielectric and magnetic properties of thin film, the theories explaining the formation of thin film and the fabrication and advantages of thin film devices.

MODULE-1

12L+12T+12P+12SL=48 Hours

UNIT-1: Thin Films and their preparation methods

Thin films versus thick films, Physical methods of preparation of thin films- Thermal evaporation, Cathodic sputtering, Molecular beam epitaxy and Laser ablation methods. Chemical methods of thin film preparation- Electrolytic deposition, Chemical vapor deposition.

UNIT-2: Thickness measurement and characterization

Electrical, Mechanical, Optical, Microbalance, Quartz crystal methods, Analytical techniques of characterization of film thickness: X-ray diffraction, Electron microscopy, High and low energy electron diffraction, Auger emission spectroscopy.

PRACTICES:

- Calculate the deposition time and energy consumption for a 3 μm thick film with a 0.05 nm/s rate and 220 W power.
- Find the deposition rate in nm/s with a sputtering yield of 0.3 atoms/ion and 0.5 A current.
- Calculate the deposition rate and thickness after 5 hours with a flux of 5×10^{12} atoms/cm²·s and a sticking coefficient of 0.8.
- Determine the energy delivered for 1 μm thickness with 5 mJ/pulse and 10 Hz frequency, 50% efficiency.
- Find the mass of the film deposited in 1 hour with 0.3 A current, 1.5 nm/min rate, and 85% efficiency.
- Calculate the mass of material deposited in 30 minutes with a flow rate of 100 sccm and 0.2 $\mu\text{m}/\text{min}$ rate.
- Calculate film thickness and mass for an 80 Hz frequency shift using QCM with a sensitivity factor of 0.22 nm/Hz.
- Find the d-spacing and film thickness for a peak at $2\theta = 28.5^\circ$ with 1.54 \AA wavelength.
- Calculate the actual film thickness at 100 nm and 600 nm from a 200,000x magnified 5 mm image.
- Determine adjusted thickness after 10 minutes of sputtering with 0.5 nm/min rate and 15% fluctuation.

MODULE-2

18L+18T+18P+18SL=72 Hours

UNIT-1: Growth and Structure of Films

General Features of thin films, Nucleation theories, Effect of electron bombardment on film structure, Post-nucleation growth, Epitaxial film growth, Structural defects.

UNIT-2: Mechanical, Optical and Electrical Properties of Thin Films

Mechanical properties: Elastic and Plastic behavior.

Optical properties: Reflectance and transmittance spectra, Absorbing films, Optical constants of film material, Multilayer films, Anisotropic and isotropic films.

Electrical properties: Conductivity in metal, Semiconductor and Insulating films, Discontinuous films, Superconducting films.

UNIT-3: Magnetic Properties of Thin Films and Thin Film Devices

Molecular field theory, Spin wave theory, Anisotropy in magnetic thin films, Domains in thin films, Applications of magnetic thin films. Thin film devices: Fabrication and applications.

PRACTICES:

- Calculate nucleation density at 600 K, given $N_0=10^{21} \text{ cm}^{-3}$, $E_a=1.5\text{eV}$, and $T=600 \text{ K}$.

- Calculate the growth rate at 450 K with $R_0=0.02$ nm/s, $T_0=300$ K, and $n=1.5$.
- Calculate the misfit strain for a substrate with $a_s=3.2$ Å and film material $a_f=3.3$ Å.
- Find the number of vacancies in 1 cm² for a film subjected to 10 keV electrons generating 2×10^{-4} vacancies/cm².
- Calculate the stress for a 0.005 tensile strain in copper with $E=120$ GPa and $\sigma_y=220$ MPa.
- Calculate the reflectance for a silicon film on glass with $n=3.5$ and thickness 500 nm.
- Calculate the absorbance of a 200 nm gold film with an absorption coefficient of 1.8×10^4 cm⁻¹ at 550 nm.
- Calculate the optical path difference for a 3-layer stack of materials with refractive indices 2.0, 1.5, and 2.5 and 100 nm thickness.
- Calculate the resistance of a 2 cm² square copper film of 100 nm thickness with resistivity 1.6 μΩ·cm.
- Calculate the critical current density for a 50 nm thick lead superconducting film with a bulk critical current density of 10^5 A/cm².
- Calculate the Curie temperature for a 50 nm thick ferromagnetic film with $J=1.2 \times 10^{-21}$ J and, $N=10^{28}$ spins/m³.
- Calculate the energy to excite a spin wave with wavevector $k=1.5$ nm⁻¹ in a film with $D=5 \times 10^{-3}$ J/m.
- Calculate energy density for a film with $K_u=1.0 \times 10^5$ J/m³ and magnetization perpendicular to the easy axis.
- Calculate domain wall thickness in a 200 nm thick magnetic film with wall energy density 2.5×10^{-3} J/m².
- Calculate the change in resistance per unit thickness of a 10 μm thick magnetic sensor with a 0.1% resistance change at 0.5 T.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Mapping with POs	Relevant SDGs
1.	Explain thin film preparation techniques, including physical and chemical deposition methods.	Remember, Understand	1, 2	4
2.	Analyze various methods for measuring thin film thickness and their characterization using advanced techniques.	Understand, Analyze	2, 3	9
3.	Apply nucleation theories and post-nucleation growth concepts to understand thin film structures.	Apply, Evaluate	3, 5	12

4.	Investigate the mechanical, optical, and electrical properties of thin films and their significance in material science.	Understand, Apply	2, 4	7
5.	Examine the magnetic properties of thin films and their applications in modern thin film devices.	Analyze, Apply	4, 6	9
6.	Explore the fabrication and applications of thin film devices in electronics and emerging technologies.	Understand, Evaluate	5, 11	11

TEXT BOOKS:

6. K.L. Chopra, "Thin Film Phenomena", First Edition, McGraw-Hill, 1969.

REFERENCEBOOKS:

- 19. George Hass, "Physics of Thin Films", Volumes 1, Academic Press Inc., 1963.
- 20. R.W. Berry, P.M. Hall and M.T. Harris, "Thin Film Technology", Van Nostrand, 1968.
- 21. L. I. Maissel and Glang, "Handbook of Thin Film Technology", McGraw Hill Higher Education, 1970.

SKILLS:

- Learn various thin film deposition methods and their effects on film properties.
- Use tools like XRD, EM, and QCM to measure and analyze thin film thickness and quality.
- Understand nucleation, post-nucleation growth, and epitaxial growth processes.
- Analyze the mechanical, optical, electrical, and magnetic properties of thin films.
- Design and apply thin films in devices for electronics, optics, and magnetism.

xxxxxxx- HARDWARE/SOFTWARE CO-DESIGN

Hours per week:

L	T	P	SL	C
2	2	2	2	4

PREREQUISITE KNOWLEDGE: Computer Architecture.

COURSE DESCRIPTION AND OBJECTIVES:

To analyze and explain the control-flow and data-flow of a software program and a cycle based hardware description. To transform simple software programs into cycle-based hardware descriptions with equivalent behavior and vice versa. To identify performance bottlenecks in a given hardware-software architecture and optimize them by transformations on hardware and software components.

MODULE-1

UNIT-1: ISSUES IN CO-DESIGN AND SYNTHESIS**[12L+8T+0P+12=20****Hours]**

Co- Design Models, Architectures, Languages, A Generic Codesign Methodology. Hardware software synthesis algorithms: hardware – software partitioning distributed system co-synthesis.

UNIT-2: PROTOTYPING & EMULATION**[12L+8T+0P +12=20****Hours]**

Prototyping and emulation techniques, prototyping and emulation environments, future developments in emulation and prototyping architecture specialization techniques, system communication infrastructure, Architecture Specialization techniques, System Communication infrastructure.

Practices

- Interfacing Memory to the Processor.
- Interfacing Processor with Peripherals.
- Interfacing a Robot Axis position Control to Processor.

MODULE-2**UNIT-1: COMPILATION TECHNIQUES AND TOOLS FOR EMBEDDED PROCESSOR ARCHITECTURES****[12L+8T+0P=20****Hours]**

Modern embedded architectures, embedded software development needs, compilation technologies practical consideration in a compiler development environment.

UNIT-2: LANGUAGES FOR SYSTEM –LEVEL SPECIFICATION AND DESIGN**[12L+8T+0P=20****Hours]**

System – level specification, design representation for system level synthesis, system level specification languages. Heterogeneous specifications and multi-language co-simulation. Introduction to Cosyma system and LYCOS system.

Practices:

- Study of FPGA Design Test Methodology.
- UART for Software Testing.
- Study of FPGA Hardware Testing Methodology.

SKILLS:

- Use Simulation software to co-simulate software programs with cycle-based hardware description.

ACTIVITIES:

- Design Cosyma & Lycos.
- Simulate cycle based hardware.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to:

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Identify CO Design models.	Apply	1	1, 2, 11
2	Compare architecture of control & Data dominated system.	Apply	1	1, 2, 4, 5, 11
3	Analyze tools for processor architecture.	Apply	2	1, 2, 3, 5, 11
4	Design Cosyma & Lycos system	Create	2	1, 2, 3, 11

Mapping of SDGs and IKS

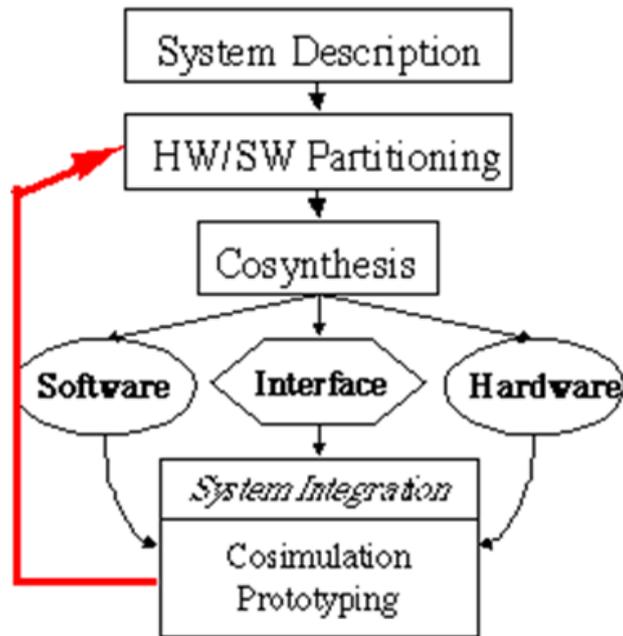
Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 4 (Quality Education)	No
SDG 9 (Industry, Innovation, and Infrastructure)	
SDG 12 (Responsible Consumption and Production)	

Text Books:

1. Jorgen Staunstrup, Wayne Wolf, "Hardware / software co- design Principles and Practice", Springer, 2009.
2. Kluwer, "Hardware / software co- design Principles and Practice", academic publishers, 2002.

Reference Books:

1. Rahul Dubay Introduction to Embedded System Design Using Field Programmable Gate Arrays, 2009 Springer-Verlag London Limited.
2. Frank Vahid & Tony Givargis, Embedded System Design, A Unified Hardware/Software Introduction, ISBN 978-0-471-38678-0 2014.



<https://www.cs.ubc.ca/wccce/program98/micaela/micaela.html>

22EC102 – NEUROMORPHIC COMPUTING

Hours per week:

L	T	P	SL	C
3	2	0	3	4

PREREQUISITE KNOWLEDGE: Neural Networks and Learning Machines, Basic Python programming knowledge, Electronic Devices and Circuits, Analog Electronics.

COURSE DESCRIPTION AND OBJECTIVES:

Describe the basic principles of neuromorphic computing and how they differ from traditional computer architectures and computing paradigms, the introduction to hardware elements belongs to the neuromorphic devices and circuits perspective.

MODULE-1

18L+12T+0P+18SL=48 Hours

UNIT-1: HARDWARE SPIKING ARTIFICIAL NEURONS, THEIR RESPONSE FUNCTION, AND NOISES

Introduction, Biological Neurons, Neuronal Response Function, Neuronal Noises, Artificial Neuron Models, Hardware Spiking Neurons, Silicon Neurons, Emerging Spiking Neurons.

UNIT-2: SYNAPTIC PLASTICITY WITH MEMRISTIVE NANODEVICES

Introduction, Neuromorphic Systems: Basic Processing and Data Representation, Synaptic Plasticity for Information Computing, Synaptic Plasticity Implementation in Neuromorphic Nanodevices.

TRANSACTIONS:

- Analyze Artificial Neuron Models.
- Analyze Hardware Spiking Neurons.
- Analyze Emerging Spiking Neurons..
- Analyze Synaptic Plasticity for Information Computing.

MODULE-2

18L+12T+0P+18SL=48 Hours

UNIT-1: NEUROMEMRISTIVE SYSTEMS: A CIRCUIT DESIGN PERSPECTIVE

Introduction: Taking a Cue from Nature, Memristor Overview, Voltage Versus Current-Mode Circuit Designs for NMSs, Neuron Circuits: Primary Information Processing Units, Synapse Circuits: Communication and Memory, Plasticity Circuits: Adaptation/Learning.

UNIT-2: REINTERPRETATION OF MAGNETIC TUNNEL JUNCTIONS AS STOCHASTIC MEMRISTIVE DEVICES

Introduction, Magnetic Tunnel Junction Basics, MTJs as Stochastic Synapses, Multiple Binary OxRAMs as Synapses for Convolutional Neural Networks.

UNIT-3: NONVOLATILE MEMORY CROSSBAR ARRAYS FOR NON-VON NEUMANN COMPUTING

Introduction, Considerations for a Crossbar Implementation, phase-Change Memory (PCM): Results, on-filamentary RRAM Results, Novel Biomimetic Si Devices for Neuromorphic Computing Architecture.

TRANSACTIONS:

- Analyze neuromorphic hardware systems.
- Analyze Magnetic Tunnel Junctions.
- Analyze phase-Change Memory.

COURSE OUTCOMES:

Upon successful completion of this course, students will have the ability to

CO No.	Course Outcomes	Blooms Level	Module No.	Mapping with POs
1	Analyze Artificial Neuron Models.	Analyze	1	1, 2, 11
2	Analyze Hardware Spiking Neurons.	Analyze	1	1, 2, 4, 5, 11
3	Implement neuromorphic circuits with the memristor.	Apply	2	1, 2, 3, 5, 11
4	Implement neuromorphic circuits with magnetic tunnel junction devices.	Apply	2	1, 2, 3, 11

Mapping of SDGs and IKS

Sustainable Development Goals (SDGs)	Indian Knowledge System
SDG 4 (Quality Education)	Yes
SDG 9 (Industry, Innovation, and Infrastructure)	
SDG 12 (Responsible Consumption and Production)	

Skills

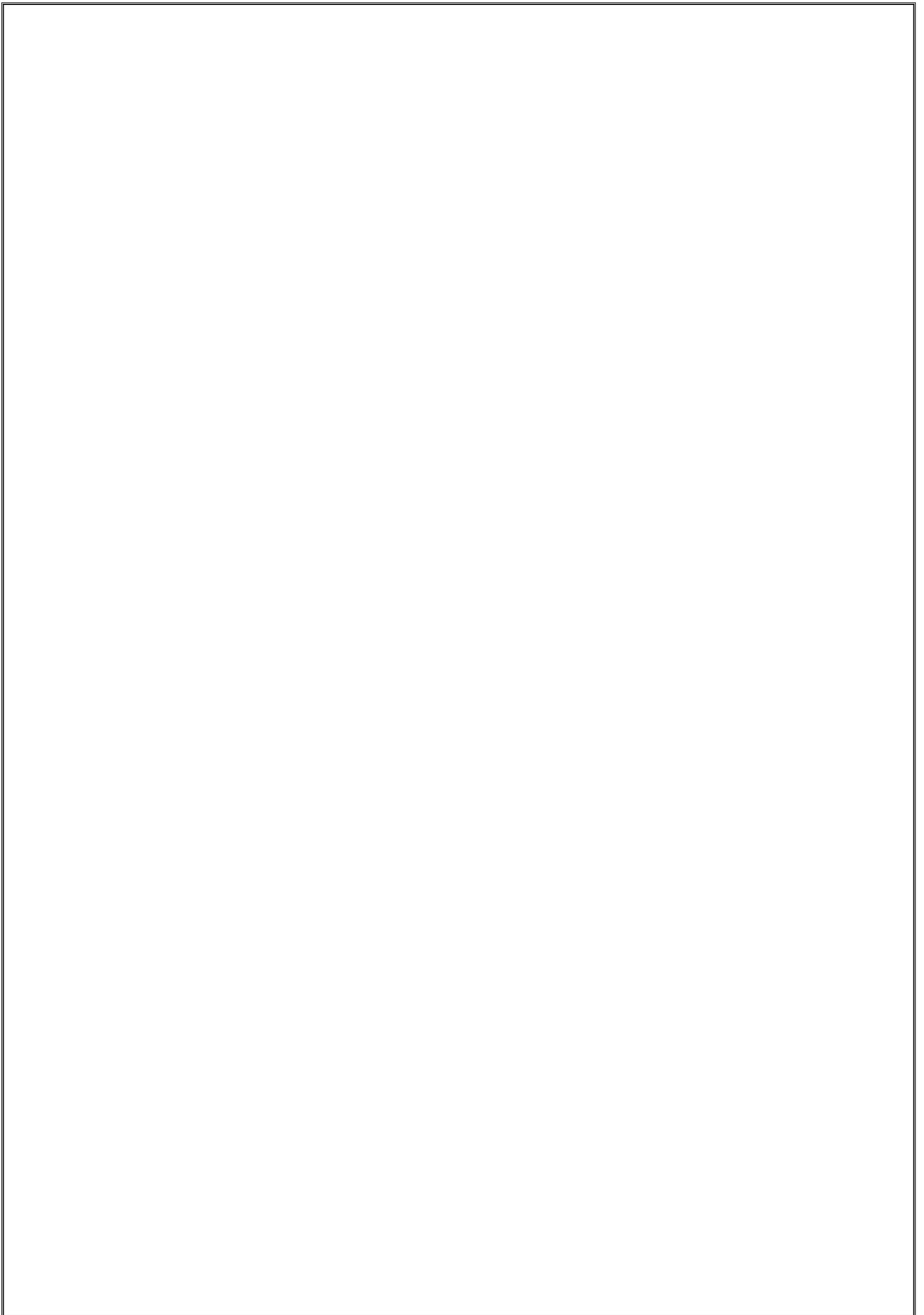
- Understanding of Spiking Neural Networks (SNNs)
- Neuromorphic Hardware Design & Analysis
- Synaptic Plasticity & Learning Mechanisms
- Memristor & Magnetic Tunnel Junction (MTJ) Applications
- Non-Von Neumann Computing & Crossbar Arrays

TEXT BOOKS:

1. Suri, Manan, ed. *Advances in neuromorphic hardware exploiting emerging nanoscale devices*. Vol. 4. New Delhi: Springer, 2017.
2. Skills & Activities:



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Evidence of Outreach Educational Activities

The University Extension Activities Council (UEAC) of VFSTR has systematically organized and executed a wide range of outreach programs throughout the 2023–24 academic year. These activities demonstrate a sustained commitment to community education and engagement.

Summary of Outreach Educational Initiatives

Activity Type	Target Audience	No. of Events	Sample Activities
School-Level Educational Programs	School students (ZP High Schools)	10+	Quiz, Drawing, Painting Competitions; Career Guidance; Awareness on Higher Education
Health & Hygiene Awareness	Villagers, Schoolchildren, Orphanages	15+	Eye Camps, Health Talks, Mental Health Awareness, Nutrition & Hygiene Sessions
Digital & Cyber Literacy	Rural communities, School students	8+	Awareness on Cyber Crimes, Mobile Addiction, E-Waste, Digital Literacy
Environmental Education	Local residents, Students, Farmers	12+	Tree Plantation, Swachh Vignan, Water & Energy Conservation, Plastic Awareness
Social Welfare & Inclusion	Orphanages, Slum Dwellers, Elderly, Displaced People	6+	Grocery & Blanket Distribution, Feed the Hunger, Book Donation, Clothing Drives
Skill & Career Development	School & College Students	5+	Career Guidance, Skill Development Talks, Engineer's Day Expo

Direct Beneficiaries Include:

- Local Residents from adopted villages (e.g., Vejendla, Selapadu, Sangamjagarlamudi, Narakoduru, etc.)
- School Students from Zilla Parishad High Schools
- Orphanages & Old Age Homes (e.g., Brahmana Koduru, Tenali)
- Slum Dwellers (e.g., Naidupeta, Guntur)
- Farmers & Rural Women
- Alumni (indirectly through institutional legacy and volunteerism culture)

The UEAC activities reflect a structured, recurring, and participatory model of community education, focusing on: Formal & Non-Formal Education, Sustainable Practices, Health & Well-being, Digital & Financial Literacy, Inclusive Outreach to marginalized and displaced groups.



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VFSTR, through its UEAC wing, has consistently and effectively conducted dedicated educational outreach activities that align with the intent of SDG Indicator 17.4.3. These programs are:

- Regularly scheduled
- Multi-thematic
- Geographically widespread
- Inclusive of diverse community segments
- Documented and evaluated

These efforts affirm the university's role as an active and responsible educational body contributing to societal development beyond its campus.

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UEAC Activities - 2023-24

S. No	Date	Event Name	Place	No of Students Participation
1	22-07-2023	Quiz and Drawing Competition at Vejendla ZP High School	ZPH School, Vejendla	40
2	26-07-2023	Eye Camp	Selapadu village	55
3	26-07-2023	Quiz and Drawing Competition at Sangamjagarlamudi ZP High School	ZPH School, Sangamjagarlamudi	40
4	27-07-2023	Groceries, Blankets and Clothing Supplies, Distribution	Orphanage home Brahmana Koduru and Ghandi ashramam Tenali	62
5	28-07-2023	Tree Plantation	VFSTR	53
6	28-07-2023	Blood Donation Camp	VFSTR	75
7	26-08-2023	Swatch Vignan	VFSTR	750
8	28-08-2023	Quiz and Painting Competitions	ZPH School Vejendla	32
9	02-09-2023	Awareness on Mobile Phone Addiction	Vejendla ZPH SCHOOL	30
10	02-09-2023	Awareness on Higher Education	Vejendla ZPH SCHOOL	30
11	12-09-2023	Awareness on E Waste	Selapadu village	41
12	12-09-2023	Awareness on Cyber Crimes	Selapadu village	41
13	14-09-2023	Importance of Service in our Life	VFSTR U BLOCK	40
14	15-09-2023	Engineers Day	VFSTR	144
15	16-09-2023	Awareness on Health and Hygiene	Sekuru	45
16	20-09-2023	Importance of 3r's Principle	Vejendla ZPHS HSCHOOL	40
17	22-09-2023	Feed The Hunger	NAIDUPETA SLUM, Guntur	67
18	23-09-2023	Awareness on Seasonal Diseases	ZPH School, Vejendla	30
19	23-09-2023	Awareness on Balanced Diet	ZPH School, Vejendla	30

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20	23-09-2023	National NSS Day	VFSTR	378
21	24-09-2023	Health Camp	Vadlamudi village	65
22	27-09-2023	Monsoon Season Awareness	Suddapalli	35
23	27-09-2023	Watershed Management and Wasteland Development	Suddapalli	35
24	30-09-2023	Health Camp Vejendla	Vejendla	45
25	30-09-2023	Quiz Competition	ZPH School Sekuru	35
26	01-10-2023	Swachhta Hi Seva / Swachh Phakwada, "EkTareekh EkGhanta EkSaath"- 2023	Vadlamudi	155
27	05-10-2023	Book From You	Child Orphanage Home, Brhmanakoduru	65
28	06-10-2023	Awareness on Cyber Crimes	Angalakuduru	35
29	06-10-2023	Awareness on Women Health & Safety	Angalakuduru	35
30	07-10-2023	Swach Vignan	VFSTR	752
31	14-10-2023	Say No to Single Use Plastic	ZPH School Vadlamudi	35
32	14-10-2023	Traffic Awareness	Vadlamudi	35
33	16-10-2023	Distribution of Protection Kit to Farmers	Vadlamudi	63
34	17-10-2023	Awareness on Rain Water Harvesting	Garuvupalem	41
35	19-10-2023	Awareness on Self Defense and Safety	Child Orphanage Home, Brhmanakoduru	41
36	19-10-2023	Awareness on Yoga	Child Orphanage Home, Brhmanakoduru	35
37	19-10-2023	Old Cloth Distribution	Child Orphanage Home, Brhmanakoduru	35
38	20-10-2023	Awareness on Maintenance	Suddapalli	32
39	20-10-2023	Awareness on Soil Pollution	Suddapalli	32
40	20-10-2023	Awareness on Beneficial Food	Vejendla	65
41	23-10-2023	Distributing Chandrayaan-3 Mementos to Government Schools	VFSTR	95

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42	06-11-2023	Session on Teen Counselling	ZPH School Vadlamudi	35
43	06-11-2023	Awareness on mental health	ZPH School Vadlamudi	35
44	10-11-2023	Swatch Vignan	VFSTR	362
45	15-11-2023	Cancer Awareness	ZPH School Sangamjagarlamudi	35
46	15-11-2023	Quiz Competition	ZPH School Sangamjagarlamudi	35
47	16-11-2023	Awareness on Air Pollution	ZPH School Vejendla	45
48	16-11-2023	Awareness about the Effects of Diwali Crackers	ZPH School Vejendla and Garuvupalem	45
49	16-11-2023	Awareness on Usage of Mobile Phones	ZPH School Vejendla and Garuvupalem	45
50	30-12-2023	Book From You	ZPH School Chebrolu and Narakoduru	65
51	06-01-2024	Awareness on Mental Health	ZPH School Angalakuduru	40
52	06-01-2024	Awareness on Covid 19 Disease	ZPH School Angalakuduru	40
53	08-01-2024	SVEEP	VFSTR	350
54	20-01-2024	Swatch Vignan	VFSTR	472
55	23-01-2024	Cloth Bag Distribution	VeeranayakuniPalem	65
56	24-01-2024	Blood Donation Camp	VFSTR	70
57	27-01-2024	Swatch Vignan	VFSTR	625
58	09-02-2024	Awareness on Skill Development	ZPH School Vejendla	45
59	09-02-2024	Awareness on Cervical Cancer	ZPH School Vejendla	45
60	09-02-2024	Say No To Plastic Water Bottles	ZPH School Vejendla	45
61	10-02-2024	Swatch Vignan	VFSTR	362
62	10-02-2024	Awareness on Food Wastage	Vejudla village	41
63	10-02-2024	Awareness on Adulteration	Vejudla village	41
64	14-02-2024	Awareness on Obesity	ZPH School Sangamjagarlamudi	21
65	14-02-2024	Awareness on Physical Fitness	ZPH School Sangamjagarlamudi	21

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66	17-02-2024	Awareness on the Nutrition Food	Vignan Jr college, Vadlamudi	20
67	17-02-2024	Career Guidance about CSE Branch	Vignan Junior college, Vadlamudi	20
68	17-02-2024	Health Awareness Talk	VFSTR(Sangamam seminar hall)	30
69	17-02-2024	Awareness on Cancer	ZPH School Sangamjagarlamudi	35
70	17-02-2024	Road Safety awareness Drive	ZPH School Sangamjagarlamudi	35
71	20-02-2024	Awareness on Organic Farming	Narakoduru village	50
72	20-02-2024	Awareness on Online Scams	Narakoduru village	50
73	21-02-2024	Awareness on Diabetes	Chebrole village	35
74	21-02-2024	Awareness on Digital Literacy	Chebrole village	35
75	22-02-2024	Awareness on Water Conversation	Vejendla village	15
76	22-02-2024	Awareness on Energy Conversation	Vejendla village	20
77	24-02-2024	Awareness on Bird Flu	Narakoduru village	25
78	24-02-2024	Awareness on Importance of Millets	Narakoduru village	25
79	24-02-2024	Awareness on Bird Flu	Chebrole village	41
80	24-02-2024	Swatch Vignan	VFSTR	256
81	27-02-2024	Awareness on Bird Flu	GaruvuPalem	30
82	27-02-2024	Awareness on Bird Flu	Primary School Selapadu	20
83	27-02-2024	Awareness on Mental Health	Primary School Selapadu	20
84	28-02-2024	Awareness on Bird Flu	Vejendla village	32
85	28-02-2024	Awareness on Cyber Crimes	Vejendla village	32
86	29-02-2024	Awareness on Health and Nutrition	Vejendla village	25
87	29-02-2024	Awareness on Diversity and Nutrition	ZPH School Vejendla	25
88	29-02-2024	Awareness on Women Empowerment	ZPH School Vejendla	25

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89	29-02-2024	Awareness on Environment conservation	ZPH School Narakoduru	25
90	29-02-2024	Awareness on Health and Nutrition	ZPH School Narakoduru	30
91	29-02-2024	Awareness on Diversity and Inclusion	ZPH School Narakoduru	30
92	29-02-2024	Awareness on Environment conservation	ZPH School Narakoduru	30
93	15-03-2024	Voter Awareness	Vadlamudi,selapadu,Chebrolu ,Vejendla village	85
94	19-03-2024	Health Awareness Talk	VFSTR(Sangamam seminar hall)	53
95	06-04-2024	Awareness on Child Care Apps	ZPH School Chebrolu	30
96	06-04-2024	Bad Effects of Smart Phone	Selapadu	30
97	22-04-2024	Swatch Vignan	VFSTR	412
98	24-04-2024	Awareness on Summer	ZPH School Angalakuduru	36
99	24-04-2024	Awareness on Mental Health	ZPH School Angalakuduru	36
100	26-04-2024	Neighbourhood Cleanliness	Selapadu, Sekuru villages	45
101	26-04-2024	Awareness on Water Conservation	Selapadu, Sekuru villages	45
102	26-04-2024	Awareness on Energy Conservation	Selapadu, Sekuru villages	45



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Quiz and Drawing competition at Vejendla ZP High School

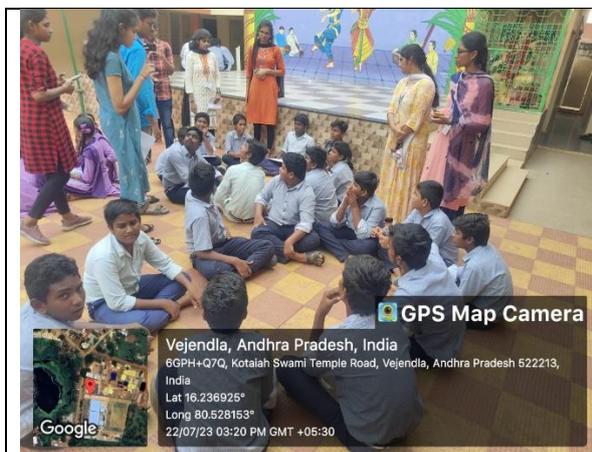
Date:22.07.2023

Venue: ZPH School Vejendla

In the honour of our esteemed Chairman Sir's birthday, the University Extension Activities Council (UEAC) of VFSTR organized a quiz and drawing competition at ZPH School, Vejendla. The event saw a remarkable turnout, with 80 individuals signing up for the quiz, which was divided into ten teams. Additionally, 150 participants eagerly engaged in the general awareness and current events sections of the event.

The quiz competition featured four rounds: an elimination round, an anagram-based round, followed by a rapid-fire round that ultimately determined the winners. At the end of the competition, the top three teams have won, securing first, second, and third places. To encourage participation and acknowledge the effort of all, the ten teams that advanced past the qualifying round received participation certificates.

This initiative was supported by 40 dedicated UEAC volunteers, representing various departments. According to Team UEAC, the event was designed as a modest yet meaningful step toward increasing awareness and fostering a deeper understanding of general knowledge within the community. The event not only celebrated Chairman Sir's birthday but also contributed positively to community engagement and education.



Quiz and Drawing competition at ZPH School Vejendla on 22.07.2023

List of volunteers:

Quiz and Drawing competition at Vejendla ZP High School on 22.07.2023			
S. No	Reg. No	Name of the Student	Branch
1	231FA04643	MUNAGALA HEMA MADHURI	CSE
2	231FA04628	YARRU ANKAMMA RAO	CSE
3	231FC01013	AJAY KUMAR	MBA
4	201FA12020	PUNATI KATHYAYANI	AG
5	211FA01133	MANGLAM MANU	BIOTECH
6	211FA05171	RAVULAPALLI SADHANA	ECE
7	231FK01010	NALLAPANENI PURNA SEKHAR	BBA
8	221FA04044	PONNEPALLI NAGA BABU	CSE

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9	211FA04397	KARNATI NAGA JYOTHI	CSE
10	231FA04D57	MANCHALA EBENEZER	CSE
11	221FA04266	BHAVYARATNA PURANDAR KANNIGANTI	CSE
12	221FA04071	SHAIK JAVED ALI	CSE
13	211FA05180	CHODAVARAPU BHARGHAVA NAGA TEJA	ECE
14	231FA18156	KOTA SUSHMA VIJAYA LAKSHMI RANA	AIANDML
15	221FC01116	BATTU PRAVALLIKA	MBA
16	231FA04F36	PENTELE MOUNIKA	CSE
17	231FA21014	GORREMUTCHU NIRANJAN	RA
18	221FA04469	JALASUTRAM ANIL KUMAR	CSE
19	231LA08021	KURUVA UDAY KIRAN	MECH
20	221FA07097	MANAM MANI TEJA	IT
21	221FA04232	ANKISETTY SAI SRUTHI	CSE
22	211FA05282	SIMHADRI BALA NAGA VENKATESWARARAO	ECE
23	231FA06023	KUOL MAYOK DONGWEI DAU	EEE
24	231FA05170	DUDDUKURI SAIRAM	ECE
25	211FA20029	GANDIKOTA VENKATA GOPIKRISHNA	CSBS
26	221FA05119	GAVINI JANAKI RAMAIAH	ECE
27	211FK01067	PANIDEPU SAI RAVINDRA	BBA
28	211LA05035	ADAPA RAVI TEJA	ECE
29	221FA04206	KOSURI LAVANYA	CSE
30	231FJ01056	NEELI BHAVANI SHANKAR RAO	BCA
31	221FA05036	KOTHARU MOHANA ASHRITHA	ECE
32	231FA18074	GADE PAVAN KUMAR	AIANDML
33	231FA19039	VUTLA KARTHIK	CSECS
34	231FA19048	BADAM SAHITHI HARI PRIYA	CSECS
35	221FA23006	YANDRAPALLI SUMANTH	DS
36	221FA04586	KANDULA KAVYA SREE	CSE
37	221FA06007	SEETALAPU UMESH NAGA CHANDRA	EEE
38	231FA04344	PACHIPULUSU KAMESWARA ABHILASH	CSE
39	231FA04A50	DANDA SIDDHARTHA	CSE
40	221FA19018	ISUKAPALLI VENKATA MYTHREYA KUMARA SARMA	CSECS

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**University Extension Activity Council (UEAC)
Annual Report – 2023-24
EYE Check-up Camp**

Date:26.07.2023

Venue: Selapadu

On July 26, 2023, the UEAC team celebrated the birthday of our Chairman, Dr. L. Rathaiah sir, by holding an eye check-up camp in our adopted hamlet, Selapadu. A group of eye specialists from Dr. Agarwal's Eye Hospital in Guntur paid the locals a visit to perform eye - examinations.

The villagers benefited from the camp since it gave them a chance to learn more about many facets of eye care. To properly assess the people, the doctors brought advanced eye examination equipment. They also discussed raising awareness and expanding access to eye healthcare services with the villagers. The purpose of this program was to raise awareness among the villages about eye conditions, their early identification, and how to identify refractive errors and other eye conditions. The folks were inspired by Mr. M. Venugopala Rao and Ms. Mannem Sireesh, the local sarpanch. Both Dr. M.S.S. Rukmini, Dean of Student Affairs, and Dr. Vijayababu Palukuri, UEAC Program Officer, visited the eye camp and gave the student volunteers encouragement. The event was organised by Mr. D. Suresh Babu, UEAC Coordinator. A total of 55 volunteers from various departments had participated in the event.

The Villagers also asked the queries they had in their mind which were solved by eye specialists. Attendees with eye problems requiring continued medical attention were given referral slips. A total of 110 spectacles were given to villagers. The camp proved to be incredibly helpful and for about 250 villagers.



EYE Check-up camp at Selapadu village on 26.07.2023

List of volunteers:

EYE CHECK-UP CAMP ON 26.07.2023			
S.NO	REG.NO	NAME OF THE EVENT	BRANCH
1	231FA05276	ANNAM BHAVISHYA PRIYA	ECE
2	221FA01084	RAVIPATI SAI VYSHNAVI	BIOTECH
3	231FA04D87	ANGALAKUDURU NAVYA MANI SRI	CSE
4	231FA18392	SOMAVARAPU NAGARJUNA	AIANDML

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5	211FW01080	MUCHU JAYANTHI	BSC HONS
6	231FA05203	KESABOYINA CHANDRA SURESH PAVAN KUMAR	ECE
7	221FA14002	MUTHOJU SRIRAM	BI
8	231FC01060	OGGU SOWMYA VENKATA SOWJANYA LAKSHMI	MBA
9	231FD01028	KONDURI SRINIVASARAO	MCA
10	221FA04610	ALLA DEEPTHI	CSE
11	221FA18110	ANDALURI HEMA VENKATA NAGESWARI	AIANDML
12	211FA18021	MUDDA KAPIL RAJ	AIANDML
13	201FA05033	SAKIRI MOHAN CHANDRA BALA NAIDU	ECE
14	221FA18118	MUKESH LAKSHMI SAI MEDIKONDA	AIANDML
15	231FA05137	AKKAPEDDI SRI NIVEDITHA	ECE
16	211FA05138	DADI VARDHAN	ECE
17	231FA18252	VARIKUTI DHARANEESWAR	AIANDML
18	221FA07106	VULLAMGUNTA LOKESH KUMAR	IT
19	211FA19057	YEPURI MANIKANTA	CSECS
20	231FD01066	THATAVARTHI KAVYA SRI	MCA
21	221FA18177	MADDI KEERTHI PRANEETHA	AIANDML
22	211FA04669	VIKASH RANJAN	CSE
23	231LA06009	SHAIK MOHAMMAD FAROOQ	EEE
24	231FA07077	BANDLA VARSHINI	IT
25	221FA19049	GANTA SUNDEEP	CSECS
26	231FA08012	VEMULAMADA NAGA SRINIVAS	MECH
27	211FA01006	MINUMANURI KOTLO JYOTSHNA	BIOTECH
28	231FC01116	SHAIK NAGURBASHA	MBA
29	211LA12009	V RACHANA	AG
30	201FA14030	GADI ADITYA VARMA	BI
31	231FW01044	NAGARAJU HEMANTH VARAMA	BSC HONS
32	211FK01039	KANDURI Y V SAI ESWAR KUMAR	BBA
33	211FA14068	ATMAKURI VENKATA MONIKA SARVANI	BI
34	231FA04435	UPPALAPATI LAKSHMI DURGA	CSE
35	221FK01062	PISAPATI SATYA KUMAR	BBA
36	231FA04482	TALLURI AKASH	CSE
37	231FM01001	MANAPATI KOWSHIK	BSC
38	211FA18128	PARAMATA SWAROOP NANDA	AIANDML
39	221FA04168	DAMARLA GAGANA DEEPIKA	CSE
40	231FJ01061	INUPAGOLLA GAYATRI	BCA
41	231FA19053	YEDULA SUBRAHMANYESWARA	CSECS
42	231FA04289	ARIKATLA YASWANTH REDDY	CSE
43	221FA05003	UPPALA NEHA TULASI	ECE
44	201FA04374	ICHAPURAM S HEMANTH	CSE
45	221FA05150	RAMISETTY GANESH KARTHIK	ECE

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46	231FA04E55	KOLLI SAI CHANDANA	CSE
47	221FJ01055	PASUPULETI IMANIUEL DEVA PAUL	BCA
48	231FA04741	ASODI DEVAKI REDDY	CSE
49	231FJ01071	PRIYANSHU RAJ	BCA
50	231FA04966	JONNALAGADDA DEVENDRA	CSE
51	231FA04950	DAGGUPATI GOWTHAM SAI	CSE
52	221FA04027	KANNURI AKSHAY	CSE
53	231FC01014	SHAIK BIBI AYESHA	MBA
54	221FA04600	KILARU SRIMANI CHAITANYA	CSE
55	211FA04605	POLIMERA VEMAREDDY	CSE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24**

Quiz and Drawing competition at ZP High School Sangamjagarlamudi

Date:26.07.2023

Venue: ZPH School Sangam Jagarlamudi

The UEAC (University Extension Activities Council) volunteers of VFSTR conducted a Quiz and Drawing competition at ZPH School Sangam Jagarlamudi on our beloved chairman sir's birthday celebrations.

A total of 120 members who enthusiastically participated in the quiz on General Awareness and Current affairs enrolled for the quiz which were divided into 12 teams. And quiz included a total of 4 rounds i.e. elimination round, anagram-based round and the final deciding round being the rapid fire out of which 3 teams emerged victorious by bagging the 1st, 2nd and 3rd places. Participation certificates were distributed to all the top 10 teams who made it through the qualifying round. A total of 40 UEAC volunteers from various departments participated in this program.

Team UEAC believes that it would be a small yet significant step forward in developing an understanding and spreading awareness in the community.



Quiz and Drawing competition at ZPH School Sangamjagarlamudi on 26.07.2023

List of volunteers:

Quiz and Drawing competition on 26.07.2023			
S. No	Reg. No	Name of the Student	Branch
1	231FA04742	THOTA NAGA VEERA PRASANNA	CSE
2	231FA06037	MAFAITI LESTENCIA	EEE
3	231FA04A69	CHEGONDI NAVYA	CSE
4	211FA04408	ALAVALA KARUNAKAR REDDY	CSE
5	211FA08031	GAJULA VENKAT	MECH
6	221FW01021	MUNNANGI THANU SRI	BSC HONS
7	211FA05141	JAMPANI GNANA VENKATA GOPI KRISHNA	ECE
8	221FC01063	SHAIK MOHAMMAD SHAIDA	MBA
9	211FA05245	GRANDHI SRAVYA SREE	ECE

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10	221FA21004	MEESALA PRATHYUSHA	RA
11	201FA05104	MADATALA TEJA REDDY	ECE
12	231FA05266	DUNDI HARI VARDHAN REDDY	ECE
13	211FK01078	RAVINUTHALA JOSEPH SUNEETH	BBA
14	231FA04218	GANGINENI SUKANYA	CSE
15	211FA18072	ALLA NITHIN REDDY	AIANDML
16	231FA04G85	SWARNA MAHALAKSHMI	CSE
17	201FA04310	MADALA PRASANNA KUMAR	CSE
18	201FA14021	MUPPANENI DEEPTHI KUMARI	BI
19	211FA05062	KOGANTI SRAVYA	ECE
20	231FA04606	SUNKARI CHARLES PAUL	CSE
21	201FA04066	NUTHI VENKATA UDAY CHAND	CSE
22	221FA14055	VELAMPALLI JAYA VYSHNAVI	BI
23	231FA19010	METTA CHARITHA CHOWDARY	CSECS
24	211FK01010	BUDDEPU DINESH KUMMAR	BBA
25	211FA04414	DEEPAK KUMAR	CSE
26	221FW01026	BEERALA SIVA RANGA MOHITH	BSC HONS
27	221FA18063	BATHINENI SUJITHA	AIANDML
28	231FA04A36	YAKKATEELA MADHU VEERA SANKAR	CSE
29	231FA04687	MATHI SIVA SUBRAHMANYAM	CSE
30	211FA01028	MANDALAPU LIKITHA	BIOTECH
31	231FA01014	RAYAPROLU B M SAKUNTALA	BIOTECH
32	221FA01005	PRINCE KUMAR	BIOTECH
33	231FA07006	CHALUVADI UDAYA SRI	IT
34	231FA04470	BADISA SRIKANTH	CSE
35	221FA18172	RAVIKRINDI DARWIN HAREESH	AIANDML
36	231FA04C59	BRAJESH KUMAR	CSE
37	221FW01045	KONDURU KRUPA	BSC HONS
38	211FA05024	ASA BHARGAVA LAKSHMI NARASIMHA	ECE
39	231FA04279	K ESHWAR	CSE
40	231FA05089	BAIRINENI SHASHI MADHAVI	ECE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Groceries, Blankets and Clothing Supplies Distribution**

Date:27.07.2023

Venue: Brahmana Koduru and Tenali

As a part of Chairman Sir's birthday, the UEAC unit of VFSTR distributed Groceries, Blankets and Clothing to Child Orphanage home Brahmana Koduru, Gandhi Aashramam Tenali, Night Shelter for Urban Homeless Tenali and Smile orphanage home Tenali on 27.07.2023. Our UEAC volunteers distribute Groceries and blanket distribution in different regions of Guntur including Brahmana Koduru and Tenali.

The satisfaction of meeting people's fundamental needs brings a unique emotion that is indescribable. They spend the cold without a blanket and lack clothing to cover their bodies. Every year during the winter months, thousands of people die because of this. Every time we go to such places, we ask ourselves if it isn't our duty to help these needy and impoverished people to lead lives full of opportunities and a sense of hope

Some folks see multiple individuals and provide them with clothing and blankets. Additionally, we provide clothing, blankets, and groceries to destitute individuals who are living a life devoid of hope, and we work to provide a glimmer of light in their lives. Participating in this activity were 62 UEAC volunteers, Associate Dean Dr. J. Nitchal Kiran, UEAC Coordinator Mr. Suresh Babu, and UEAC activity Officer Dr. Vijayababu Palukuri.



Distribution of Groceries, Blankets and Clothing Supplies at old age and orphanage homes at Tenali and Brahmana koduru on 27.07.2023

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List of volunteers:

Distribution of Groceries, Blankets and Clothing Supplies on 27.07.2023			
S.No	Reg.No	Name of the Student	Branch
1	211FA04674	KHUSHI KUMARI	CSE
2	221FA05123	SRUNGARAPU JAGADEESH	ECE
3	221FA04065	KUCHIPUDI NAGA LAKSHMI HANSIKA	CSE
4	231FA15013	AVADANAM PANENDRA KUMAR	FT
5	211FA16019	REDDYMACHU BHAVANA	BM
6	231FA04F03	SHAIK NAWAZ BASHA	CSE
7	221FA04188	MUDIYALA PUJITHA	CSE
8	211FW01036	TANISHKA NAGANDLA	BSC HONS
9	231FA18274	ATLURI BHANU SRI	AIANDML
10	201FA07083	PRAMOD KUMAR	IT
11	211FA05060	CHEDURUPALLI MAHESH	ECE
12	231FK01124	PEDDINTI NUTANA	BBA
13	221FA01022	MUTHYALAMPALLI PRANEETHA	BIOTECH
14	231FA06009	SYED AHAMED ALISHA	EEE
15	221LA02009	SHANMUGAM JAGADESWARI	CHEM
16	221FK01047	MEKALA AMRUTHA VARSHA	BBA
17	211LA22009	PANCHALA CH V S N SAI LAKSHMI PRASAD	TT
18	221FW01083	PERALA SRI PRIYA	BSC HONS
19	221FA23028	BANDARU MYTHRI	DS
20	211FK01051	MANDIREDDY NIKITHA	BBA
21	221FA04617	KATTI YAMINI	CSE
22	231FA14008	GUDAPATI LIKHITHA	BI
23	231FA04794	GONTLA BINDU VENKATA SAI AMRUTHA	CSE
24	211FA01064	MAAKANI CHAMUNDESWARI	BIOTECH
25	231FA04661	TIYYAGURA PRADEEPTHI	CSE
26	221LA05007	KALAPALA MIHARIKA	ECE
27	211FW01075	MUVVALA NEELIMA	BSC HONS
28	231FA18441	GANDHAM LAKSHMI NARAYANA	AIANDML
29	201FA15035	MEGHANA PULAGAM	FT
30	231FA04F02	ALAPATI KEERTHANA	CSE
31	221FA01140	YEMINENI HEMANADH	BIOTECH
32	221FA04544	JETTI USHA KALYANI	CSE
33	231FA04G38	MD RIZWAN	CSE
34	221FA07009	BOLLA LALITHA SRI	IT
35	231FA18139	RAMANA YAMINI	AIANDML
36	221FJ01015	DANDIGIRI LAKSHMI	BCA
37	231FA04E47	YANAMANDRA VENKAT RAMA KASYAP	CSE
38	221FA18182	BANDI HARSHITHA SRIJA	AIANDML

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39	201FA16026	SHAIK SHAMEEM	BM
40	211FA15009	KONDAPALLI RUCHITHA SREE	FT
41	211LA03007	JAMMALAMADAKA DURGA SASANK	CIVIL
42	231FA04277	VANKAYALA JYOTHI NAGA ADHARSHINI	CSE
43	221FA18026	CHANDALURI NAGA SOWMYA SRI	AIANDML
44	231FA14040	KOTAGIRI THANUJA	BI
45	211FA04302	MUSUNURI SIVA RAMAKRISHNA	CSE
46	221FC01059	KUKKALA HARISH REDDY	MBA
47	231FA07089	PALA SAHITHI	IT
48	231FA04G48	TUSHAR KUMAR	CSE
49	231FA15020	MAHAMMAD GOUSE YASINULLA	FT
50	221FA01014	TENALI VASUNDARA	BIOTECH
51	231FA18438	PONNEBOINA VENKATA NAGA BALAKRISHNA	AIANDML
52	231FW01002	AMAN SHEKHAR	BSC HONS
53	231FA16023	NAGUMOTHU SAILAJA	BM
54	211FA01082	YARLAGADDA BHAVANA	BIOTECH
55	231FK01139	BHUVANAGIRI SAI SRI VIDYA	BBA
56	201FA04451	GOTTAM LAVANYA	CSE
57	231FA04417	MIDDIBOINA PAVAN KUMAR	CSE
58	211FA04103	BHAVANAM SURYA PRAKASH REDDY	CSE
59	211FA07098	KOLLURU MOHITHA	IT
60	231LA12003	VELPURI MOUNIKA	AG
61	231FA04922	KUNTAMUKKALA UMESH CHOWDARY	CSE
62	201FA01059	KAKANI SAI PRAVALLIKA	BIOTECH

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**University Extension Activity Council (UEAC)
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Tree Plantation**

Date: 28.07.2023

Venue: Convocation Hall, VFSTR

VFSTR Extension Activity Council of VFSTR conducted the Tree Plantation program in the VFSTR Campus on 28th July 2023. 53 student volunteers have participated in this plantation drive to protect the Environment. UEAC Program Officer Dr. Vijayababu Palukuri, Faculty & Staff, CSE Faculty Coordinator Mr. VenkataSubrahamanyam, IT Faculty Coordinator Mr. V. Nagireddy, NSS Coordinator Mr. D. Suresh Babu, Maintenance Incharge Mr. Hanumantha Rao, and NSS volunteers actively participated in this program.



Tree Plantation at VFSTR premises on 28.07.2023.

List of volunteers:

Tree Plantation on 28.07.2023			
S.No	Reg.No	Name of the Student	Branch
1	201FA04370	ELCHURI MAHESH BABU	CSE
2	221FA23033	GOLLAPUDI REVATHI	DS
3	221FC01032	THUPURI LAKSHMI KANTH	MBA
4	211FA01092	PINNI SARATH VENKATESH	BIOTECH
5	211FA01120	BUDATI BHAGYA SRI	BIOTECH
6	221FA04628	ALLAPARTHI REVANTH	CSE
7	231LA19002	SHAIK MOSEN AHAMAD	CSECS
8	231FA04785	MANUKONDA CHANDRA SEKHAR REDDY	CSE
9	231FA04632	RAVIPATI HANEESH MADHUR	CSE
10	231FA04F01	KONDAMADUGULA CHETAN REDDY	CSE
11	221FA01054	MANDRU TEJA SRI	BIOTECH
12	231FA01128	MEKALA KEERTHIKA	BIOTECH
13	221FA04217	KAKANI TEJA SREE	CSE
14	231FA01027	BURRI SAI MAHITHA	BIOTECH
15	231FA04G91	VULTA LAKSHMINARAYANA	CSE
16	231FA18221	MODUKURU MANOJ KUMAR	AIANDML
17	211FA03006	DASARI SAI VISHNU BABU	CIVIL
18	231FA21009	SHAIK SUBHANI SOHAIL	RA
19	221FA14008	NALLAMOTHU SRIVALLI	BI
20	231FA05024	BHUMIREDDY VYSHNAVI	ECE

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21	231FA04D32	VEMULA JAYASREE	CSE
22	231FA04495	CHILUKURI UJWALA SRINIVAS	CSE
23	221FA06024	MOHAMMAD MAHABUBE SUNAYN	EEE
24	201FA14039	KONDA MEENAKSHI RISHITHA	BI
25	231FA18462	PERUMALLA YOGI VENKATASAI LAKSHMI HARSHITHA	AIANDML
26	211FA04648	SOURAV KUMAR	CSE
27	231FC01027	ANNEM HARSHINI	MBA
28	211FA04405	GUNTUPALLI LOKESH CHANDRA	CSE
29	231FA16019	ANNAPUREDDY RAJITHA	BM
30	231FD01023	KANDUKURI SUSHMA	MCA
31	231FA04E33	SHAIK FARHATH AISHA	CSE
32	231FA04634	LINGAMANENI S SS VIJAYENDRA CHOWDARY	CSE
33	211FA19038	TAMMINENI LAKSHMI NARASIMHA	CSECS
34	211FA01066	JALAPATI ABHIGNA LAKSHMI PRIYA	BIOTECH
35	231FA18338	NAGALINGAM DURGA PRASAD	AIANDML
36	211FM01014	KANCHI BHARGAVI	BSC
37	231FC01151	DAGGUPATI AYYAPPA	MBA
38	231FA01107	NARRA DEEPIKA	BIOTECH
39	211FJ01010	BALARAM GOPI YALAVARTHI	BCA
40	221LA08026	THAMANAM PRADEEP BABU	MECH
41	231LA08016	SHIMANTA KASHYAP BORAH	MECH
42	221FA18015	GUNTUR KAVYA	AIANDML
43	221FA07125	VELUVOLU JITENDRA NADH CHOWDARY	IT
44	201FA04107	MAKKENA HARSHITHA	CSE
45	231FJ01011	SHAIK JIYAUDDIN	BCA
46	211FA05188	MADALA VENKATA KAVYA SRI	ECE
47	231FA16050	YANDURI LAKSHMI KESAVA RUPESH	BM
48	201FA05090	YARRAMANAYUNI DILEEP	ECE
49	231FM01005	CHIGURUPATI SNEHA SREE	BSC
50	231FA05240	GUDA NAGA SAI ASHOK	ECE
51	231FM01018	SHAIK KHAJA MOHIDDIN	BSC
52	221FA01006	BHUKKE VIDHYA VARSHINI	BIOTECH
53	231FA04003	SHAIK MUTAHHAR	CSE

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**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Blood Donation Camp**

Date:28.07.2023

Venue: VFSTR

UEAC (University Extension Activity Council) Unit of VFSTR organized a Blood Donation Camp on Chairman Sir's birthday on 28th July 2023 in the University premises. It was held at four places (NTR library video conference hall, 1st floor, TBI Seminar 2nd floor Nagarjuna block, AGF-02 U block ground floor and VFF-02 Lara campus). A team of 4 doctors and 30 lab technicians from GGH Guntur, needed a blood bank, Guntur and Sree Welfare Blood Bank Guntur came for the collection of blood. The event started at 10.00 AM.

The Dean of Student Affairs Dr.M.S.S Rukmini and the UEAC Programme Officer Dr. Vijaya Babu Palukuri inaugurated the camp. The UEAC Programme Officer encouraged the students and staff by donating his blood and explained the benefits of blood donation to students. He also said that every donor can save the lives of people in an emergency.

75 students and 10 faculty members from the different departments donated blood to this camp. The three blood banks have given appreciation certificates to all the donors for their voluntary generous responsibility. The camp was completed around 3 PM.



Blood Donation Camp on 28.07.2023

List of volunteers:

Blood Donation Camp on 28.07.2023			
S.No	Reg.No	Name of the Student	Branch
1	231FJ01033	ARUDALA PUJITA	BCA
2	211FA18102	MALISSETTI RAMNARAYANA	AIANDML
3	231FA05105	KUNCHALA VENKATA KOTESWARA REDDY	ECE
4	211FK01152	YENUGANTI LEELA MAHESWARI	BBA
5	211FA04499	SHAIK MOHAMMED SAIF	CSE
6	231FA07023	KARNATI PAVITHRA	IT
7	211FA04036	BANDLA M SRI LAKSHMI DURGA NIKHITHA	CSE
8	221FA02002	SHAIK ASSAD	CHEM

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9	231FA04029	POPURI BINDU MADHAVI	CSE
10	231FA23038	CHANDALURI VASANTH REDDY	DS
11	211FA05165	SHAIK KHALEED BASHA	ECE
12	201FA20004	ANISSETTI VENKATA SAI YASWANTH	CSBS
13	221FA04350	SHAIK FATHIMUNNISA	CSE
14	231FA18373	MUMMINA BHARGAV	AIANDML
15	231FA04069	SHAIK ARSHAD	CSE
16	231FA04320	GRANDHI VENKATA SAI PRATHAP	CSE
17	221FA04095	GUNTURU MANOJ KUMAR	CSE
18	231FA04C53	BAPANAPALLI SOWJANYA	CSE
19	211FJ01051	SAYYAD SHAFI	BCA
20	231FA15033	UDATHA SIVA MANI	FT
21	221FA04240	CHERUKURI PRAVALYA	CSE
22	211FA04351	IGUTURI MOUNIKA	CSE
23	221FW01020	NUNNA SRAVANTHI	BSC HONS
24	231FA04G71	BADDELA RAJA SEKHAR	CSE
25	211FW01096	KORIVI KARTHEEK	BSC HONS
26	231FA16007	PENUMALA VARSHINI	BM
27	211FA05168	MADAMANCHI LAKSHMI SINDHURA	ECE
28	231FA04A55	AKULA HIMAVARSHITHA	CSE
29	221LA08018	LAKSHMISSETTY RAGHUVVEER KANTH	MECH
30	221FJ01077	VELANATI SAI APURUPA	BCA
31	231FA05244	DUSARI MADHU VENKATA SAI RAM	ECE
32	231FA04E09	HARI KRISHNA TUPAKULA	CSE
33	221FA07080	SAKALA LAKSHMI BHANU SAI SATHISH	IT
34	221FA04660	PALEPU M N V S LS PRABHAVATHI	CSE
35	231FC01108	MEKALA INDIRA PRIYADARSINI	MBA
36	231FA04A62	MUSULLA SATYA SAI RAKESH	CSE
37	231FA04935	MANDADI MURALI KRISHNA REDDY	CSE
38	201FA01121	KASVA DIVYA SREE	BIOTECH
39	221FA04210	VANGA JAHNAVI	CSE
40	231FA04362	RAMISSETTI TAGORE	CSE
41	211FA01032	PALLABOTHULA NAGA LAKSHMI	BIOTECH
42	231FA04374	GOGINA UMA MAHESWARI	CSE
43	221FA06002	WALEED	EEE
44	221FA01035	PAMULAPATI HARIKA	BIOTECH
45	211FA06011	VARAGANI ANJANEYULU	EEE
46	211FA04341	NALLABOTHU TRINADH	CSE
47	211FA20012	YARRA NAGA VENKATA ARAVINDHA SAKETH	CSBS
48	221FA05201	JONNAKUTI VINAY JOSEPH	ECE
49	221FA05229	TANGELLAMUDI MOUNIKA	ECE
50	211FA04062	ADDEPALLI JAYANTH	CSE

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51	221FD01046	NARADASU PAVAN KALYAN	MCA
52	211FA04197	MACHAVARAPU SAI SRAVYA SRI	CSE
53	231FA23095	SRUNGARAPU MOHAN VENKATA GOPI SIDHARDHA	DS
54	201FA04280	JERRIPOTHULA YOGYATHA SREE	CSE
55	221FA07067	KOLLI AARATHI	IT
56	221FA04032	PALADUGU SIVA SATYANARAYANA	CSE
57	231FA04517	KASUKURTHI RISHITHA	CSE
58	231FA03001	JALALELDEEN MOHAMED ADAM MODARDUM	CIVIL
59	231FA05202	KORNE GANESH	ECE
60	221FA04639	YEKKANTI LAKSHMI	CSE
61	201FA14024	BHAVANAM DIVYA SAISRI	BI
62	221FK01065	RAJANALA SOWJANYA	BBA
63	211FK01036	KALIKIRI KISHAN REDDY	BBA
64	221FA01095	VELDURTHI MOKSHA MADHUMINA	BIOTECH
65	221FA07016	THOTA SRAVAN KUMAR	IT
66	221FA04031	NAGULAPATI PHANINDRA RAJAMITHRA	CSE
67	231FA04130	KASIBHOTLA LAKSHMI RAJESWARI SAILAJA	CSE
68	211FA07052	SHAIK NAGULMEERA	IT
69	231FA03015	MABIKA AUSTIN T	CIVIL
70	231FA04B70	GANAPA RAKESH REDDY	CSE
71	201FA15007	SAI GANESH UPPUTURI	FT
72	231FA23024	P VENKATA JAYA MANIKANTA	DS
73	221FA05209	L S B ADITHYA ABBARAJU	ECE
74	211FK01149	PINJARI SAMEERA	BBA
75	231FA18454	KONDAVEETI VISHWANTH SAI PHANI	AIANDML



University Extension Activity Council (UEAC) Annual Report – 2023-24 Swatch Vignan

Date: 26.08.2023

Venue: Vignan University

The event “Swatch Vignan” was conducted in the indication of cleanness and hygiene maintenance of surroundings by the Vignan University on 26th Aug 2023 by the team UEAC.

Every week this program is organized to bring awareness on cleanness and its importance. The event was held in H- H-Block at 2 o'clock. A total of 750 members got involved in this event. That includes all the 1st year section coordinators, vertical leads and core members. The objective of cleanliness is to get rid of all non-biodegradable wastes like plastic covers, plastic bottles, plastic straws, fibres etc. which leads to health issues and clean university premises.

The Program commences an assembly of NSS (Volunteers and coordinators) and at 1:45 PM the dividing of groups takes place according to their disciplines and each branch has contributed their efforts to make the University clean. By the time of 3:30 PM, all were gathered at the H- -Block Oat for the small interaction with the NSS core team and an appreciation for the accomplishment of the event further proceeded by clicking a few photos and finally, everyone had dispersed to their respective classes with a thank you note.



Swatch Vignan in Vignan University on 26.08.2023

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List of volunteers:

Swatch Vignan on 26.08.2023			
S.No	Reg.No	Name	Branch
1	181FA01142	KASULA VENKATA SAI KUMAR RAJA	BIOTECH
2	181FA05266	IDRISS ABAKER IBRAHIM NOUR	ECE
3	191FA01162	PEETA VENKATA SAI JAYA CHANDRA	BIOTECH
4	191FA04135	CHIRALA VENKATA SAI AJITH	CSE
5	191FA04408	POLAM REDDY VENKATA SRIKANTH REDDY	CSE
6	191FA04600	MATTUPALLI YESU RAMBABU	CSE
7	191FA05094	KAKARAPARTHI SETHA RAO	ECE
8	191FA07072	CHAVALI RAHUL	IT
9	191FA07116	NALLAJERLA HEMANTH	IT
10	191FA16023	SEYSH NIKKILA NEMALIKANTI	BM
11	191FN01024	ABHINANDAN KUMAR	B.PHARM
12	201FA01001	DEEVI SINDHU	BIOTECH
13	201FA01002	GERALD ROBY	BIOTECH
14	201FA01003	GUNTUPALLI CHARITHA SRI	BIOTECH
15	201FA01004	KOGANTI SUBRAMANYAM	BIOTECH
16	201FA01005	MANCHIKANTI BHARGAVA VENKATA SIVA VAISHNAV	BIOTECH
17	201FA01006	MOHAMMAD OMER FAROOQ	BIOTECH
18	201FA01009	TADIMETI. V. L. K. V. SAI SARANYA	BIOTECH
19	201FA01010	UNDAVALLI NEELAKSHI DEVI	BIOTECH
20	201FA01012	CHERUKURI KARTHIK	BIOTECH
21	201FA01013	VARDHINEEDI NIKHIL SREE SAI NAGENDRARAGHAV	BIOTECH
22	201FA01016	DELNA THOMAS	BIOTECH
23	201FA01017	PATAN MOHASEENAROSHAN	BIOTECH
24	201FA01018	BAGGI SASI REKHA	BIOTECH
25	201FA01019	ANKALA TARAKA SAI RUTHWIK	BIOTECH
26	201FA01020	PATHAN KHAJA THABASSUM	BIOTECH
27	201FA01021	BANDI DIVYASRI	BIOTECH
28	201FA01023	LINGALA SAI MAHESH	BIOTECH
29	201FA01024	UGGIRALA GANGA RAJU	BIOTECH
30	201FA01025	GUDIWADA BHUVAN KRISHNA NAYAK	BIOTECH
31	201FA01026	AMARA PRAVEEN	BIOTECH
32	201FA01027	KANUGOLU HEMANTH KUMAR	BIOTECH
33	201FA01028	PULUSU BHAVANI	BIOTECH
34	201FA01030	MIRIYALA SAHITHI SREE	BIOTECH
35	201FA01031	KOTHAMASU GAYATHRI	BIOTECH
36	201FA01032	PONNAGANTI VAISHNAVI	BIOTECH
37	201FA01033	MACHAVARAPU NAGA PAVAN SATISH KUMAR	BIOTECH
38	201FA01034	NEERAJA ANAGANI	BIOTECH
39	201FA01035	KOMMINENI JAHNAVI	BIOTECH
40	201FA01036	KONA THARUN	BIOTECH
41	201FA01037	RASINENI KUSUMASREE	BIOTECH

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42	201FA01038	D DIVYA	BIOTECH
43	201FA01040	GOWRA PRATHYUSHA	BIOTECH
44	201FA01041	DAMINENI NIKHILA	BIOTECH
45	201FA01043	KOGANTI NAGA CHAITANYA	BIOTECH
46	201FA01045	KUCHIPUDI VYSHNAVI HARI PRIYA DEVI	BIOTECH
47	201FA01048	JONNADULA PRABHU MOHAN	BIOTECH
48	201FA01050	GALAM NIKHITHA	BIOTECH
49	201FA01051	KOGANTI NAGA PRAVALLIKA	BIOTECH
50	201FA01052	MODALA VENKATA SAI ALEKHYA	BIOTECH
51	201FA01053	KOTHA VENKATA AKANKSHA	BIOTECH
52	201FA01054	MUNAGALA VARSHITHA	BIOTECH
53	201FA01055	BOYAPATI JESWANTH PHANI	BIOTECH
54	201FA01056	THATIKONDA SRILEKHA	BIOTECH
55	201FA01057	BATTULA SAI DIVYA	BIOTECH
56	201FA01058	SYED VAHEED	BIOTECH
57	201FA01059	KAKANI SAI PRAVALLIKA	BIOTECH
58	201FA01060	ALURI BHARGAVA SAI	BIOTECH
59	201FA01061	BELLA BALA GAYATHRI	BIOTECH
60	201FA01062	SHAIK TANVEER BANU	BIOTECH
61	201FA01063	DUVVURU PRAGNA REDDY	BIOTECH
62	201FA01064	KANNA HIMAVARSHA	BIOTECH
63	201FA01066	KANAPARTHY AJAY	BIOTECH
64	201FA01067	THOKA SIVA DHARMENDRA	BIOTECH
65	201FA01069	TADIGIRI LEANDER PRAKASH	BIOTECH
66	201FA01070	ONGOLU PAVAN	BIOTECH
67	201FA01071	TADUVAI TRIVIKRAM SRI HARI	BIOTECH
68	201FA01072	MADALA HIMA SRI	BIOTECH
69	201FA01073	BINDU VAISHNAVI PRAYAGA	BIOTECH
70	201FA01074	BADI SAI SHRIYA REDDY	BIOTECH
71	201FA01075	KASARLA NARSI REDDY	BIOTECH
72	201FA01077	KAPULURU GANESH SAINATH	BIOTECH
73	201FA01078	TIRUPATI SAI GEETHIKA SREE	BIOTECH
74	201FA01079	BHUMARAJU VEENA SRI	BIOTECH
75	201FA01080	JAMMOJU VEERA VENKATA RAGHAVENDRA DHANUSH	BIOTECH
76	201FA01081	NAGA KEERTHI GOPU	BIOTECH
77	201FA01082	JOGINPALLY PRIYANKA	BIOTECH
78	201FA01083	RACHAMALLA HARSHITHA	BIOTECH
79	201FA01085	NAVYA SREE AREPALLI	BIOTECH
80	201FA01086	THATAVARTHI PRASANTH	BIOTECH
81	201FA01089	VEJENDLA KIRAN	BIOTECH
82	201FA01090	VELUVOLU DEVIKA	BIOTECH
83	201FA01091	JAGADAM SRI RAGHAV SIDDHARTH RAO	BIOTECH
84	201FA01092	PERUMALLA PRADEEPTHI NAVYA	BIOTECH
85	201FA01093	UPPUTURI SYAM KUMAR GUPTA	BIOTECH
86	201FA01094	THIPPIREDDY PRADEEP REDDY	BIOTECH

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87	201FA01095	POLURI SHREYA	BIOTECH
88	201FA01096	MALLAVARAPU MARY ROHITHI	BIOTECH
89	201FA01097	KANDUKURI SRIMANTH SAI	BIOTECH
90	201FA01098	M L PRIYANKA THIRUMALASETTI	BIOTECH
91	201FA01099	VEERAVALLI AMULYA	BIOTECH
92	201FA01101	THOTAKURA PRANEETH	BIOTECH
93	201FA01102	NEERUKATTU NAGA VENKATA SRI HARSHINI	BIOTECH
94	201FA01103	KUMMARI ADITHYA	BIOTECH
95	201FA01104	THADIKONDA VIKAS	BIOTECH
96	201FA01105	BATTULA DHARANI	BIOTECH
97	201FA01106	PENDYALA YASWANTH KUMAR	BIOTECH
98	201FA01107	YALLAMATI MADHU BABU	BIOTECH
99	201FA01108	VANGALA INDRAKARAN REDDY	BIOTECH
100	201FA01109	DOSAKAYALAPATI BHANU CHARAN	BIOTECH
101	201FA01110	KATA PRASANTHI	BIOTECH
102	201FA01111	PADETI PRATHYUSHA	BIOTECH
103	201FA01112	MYLAVARAPU LAKSHMI HARSHINI	BIOTECH
104	201FA01113	MADDINENI BHARGAVI	BIOTECH
105	201FA01114	GUNJI MAHENDRA	BIOTECH
106	201FA01115	BAHADUR SUNEEL KUMAR	BIOTECH
107	201FA01116	KUNDURU JAYA SRI	BIOTECH
108	201FA01117	KOYA TEJA	BIOTECH
109	201FA01118	DAMACHARLA SRAVANI	BIOTECH
110	201FA01119	DUVVADA LIKHITA	BIOTECH
111	201FA01120	MALLEMKONDU VENKATA SAI SUMA SRI	BIOTECH
112	201FA01121	KASVA DIVYA SREE	BIOTECH
113	201FA01122	KILLI GOWTHAMI	BIOTECH
114	201FA01123	SHAIK SHAKIRA	BIOTECH
115	201FA01124	POLIBOINA HARIBABU	BIOTECH
116	201FA02002	KANUMURI LASYA VARDHINI	CHEM
117	201FA02003	M VIDYA Sampadha	CHEM
118	201FA02004	VEERAPANENI CHAITANYA	CHEM
119	201FA02005	SHAIK SHAFI	CHEM
120	201FA02006	PURUSHOTAM KUMAR	CHEM
121	201FA02007	KHUSHI KUMARI	CHEM
122	201FA02008	KATLA SUJATHA	CHEM
123	201FA02009	MANDAGIRI SRINADH	CHEM
124	201FA02010	SHAIK SHAMSHEER	CHEM
125	201FA02011	ANNAPA REDDY VENKATA SASI KIRAN REDDY	CHEM
126	201FA02012	SURKANTI SAI	CHEM
127	201FA03002	PYNAM HEMANTH REDDY	CIVIL
128	201FA03005	PANDRANGI SASANK SAI KUMAR	CIVIL
129	201FA03007	PONNURI MADHU BABU	CIVIL
130	201FA04001	AKKALA NAGA GANESH KUMAR	CSE
131	201FA04002	BANDARU SRI PRIYA	CSE
132	201FA04003	BASANI MANOJ REDDY	CSE

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133	201FA04007	GANESULA JANAKI SRIRAM	CSE
134	201FA04008	GOLI MIDHUN PANDU	CSE
135	201FA04009	GRANDHE SAI RAGHU VAMSI	CSE
136	201FA04012	ISHA JAIN	CSE
137	201FA04016	KUCHIPUDI LAKSHMI NARAYANA	CSE
138	201FA04018	MAKINENI SAI RAVALI	CSE
139	201FA04020	MANJEERA BOLISSETTY	CSE
140	201FA04021	MATURU DIVYA SREE	CSE
141	201FA04022	MUMMALANENI HARSHA VARDHAN	CSE
142	201FA04024	MUPPA LAKSHMI DURGA	CSE
143	201FA04028	POTTI VENKATA SOWMYA	CSE
144	201FA04029	POTTURI SAI NAGA SAKETH	CSE
145	201FA04030	RAYI VIDHYA SAGAR	CSE
146	201FA04031	SANAKA SHANMUKA SRI HARSHA	CSE
147	201FA04032	SANKA PRAJNA	CSE
148	201FA04033	SAYYAD ARIF	CSE
149	201FA04034	SHAIK ASMA	CSE
150	201FA04035	SHAIK MOHAMMAD FAYAZ	CSE
151	201FA04036	SHAIK MOHAMMAD VASIM	CSE
152	201FA04037	SRILAKSHMI PULUKURI	CSE
153	201FA04039	TOTTEMPUDI HAVISH	CSE
154	201FA04042	VUYYURU SUPRAJA	CSE
155	201FA04043	YAKKATI HEMASRI	CSE
156	201FA04045	AMBATI BALA SAMPATH KUMAR	CSE
157	201FA04049	BODAVULA TEJA	CSE
158	201FA04050	CHANDU UMA DEVI	CSE
159	201FA04052	EDARA RESHMA BINDU	CSE
160	201FA04053	GULLAPALLI SAI ESWAR	CSE
161	201FA04054	GUNTAKA HIMA SRI	CSE
162	201FA04055	K.VANITHA	CSE
163	201FA04061	MANNAVA AKSHAY VARMA	CSE
164	201FA04063	NALLAJERLA HARSHINI	CSE
165	201FA04064	NAMBURI NAGA SAI SRIHITHA	CSE
166	201FA04065	NILLA TEJESH	CSE
167	201FA04066	NUTHI VENKATA UDAY CHAND	CSE
168	201FA04067	P SLN MARUTHI ANIL KUMAR	CSE
169	201FA04069	PAMULAPATI VATSAV PHANI	CSE
170	201FA04074	REDDYVARI UDAY KUMAR REDDY	CSE
171	201FA04076	SHAIK BAJI BUDA	CSE
172	201FA04080	TADIKAMALLA CHETAN SAI	CSE
173	201FA04083	VADDULA BABY SRAVYA	CSE
174	201FA04084	VEERLA NANDA KISHORE	CSE
175	201FA04085	VEMIREDDY SIDDUREDDY	CSE
176	201FA04087	VEMULAPALLI SAI ANJANI	CSE
177	201FA04088	VUPPALAPATI TEJASWINI	CSE
178	201FA04090	ALLA THANUSHA	CSE



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179	201FA04091	AMMISSETTY SAI RESHMANJALI	CSE
180	201FA04093	B.AMITHA	CSE
181	201FA04094	BIKKI SAI VINAY KUMAR	CSE
182	201FA04095	DUDEKULA RESHMA BHANU	CSE
183	201FA04098	HEM RATNA SAI GHANTA	CSE
184	201FA04099	JANGA NAGA VENKATA GANESH	CSE
185	201FA04100	KARYAMAPUDI SRI SAI NANDALAL	CSE
186	201FA04101	KONDA BHANU TEJA REDDY	CSE
187	201FA04103	KUSAM SUPRAJA	CSE
188	201FA04104	M SHARATH CHANDRA REDDY	CSE
189	201FA04107	MAKKENA HARSHITHA	CSE
190	201FA04108	MAMILLAPALLI SHRILEKHA	CSE
191	201FA04109	MANNE SUJITHA	CSE
192	201FA04110	MUNDLAMURI AKHIL CHOWDARY	CSE
193	201FA04111	NALLIBOINA NARSING	CSE
194	201FA04112	NARRAVULA YUGANDHAR	CSE
195	201FA04116	PARDHIV SAI ALLAM	CSE
196	201FA04117	PASUPULETI RATHNA MOUNIKA	CSE
197	201FA04119	RAVIPATI GIRIDHAR	CSE
198	201FA04120	RAYASAM VEERA BHADRA SIVA SAI RAM	CSE
199	201FA04121	SAISREEJA KONDRU	CSE
200	201FA04122	SAKHAMURI RAKSHITHA	CSE
201	201FA04123	SEELAM MEGHANA SADWINI	CSE
202	201FA04127	SHAIK SUMBUL FAIZANI	CSE
203	201FA04133	VUYYURU LAKSHMI SAI RAMIREDDY	CSE
204	201FA04134	ALAPATI TEJA SAI MOUNIKA	CSE
205	201FA04136	AMRUTHA GOGISETTY	CSE
206	201FA04140	BODDU DEEPTHI	CSE
207	201FA04142	CHAGANTI SAI SUSHMINI	CSE
208	201FA04146	GALI NANDHINI	CSE
209	201FA04147	GANTA DURGA SUSMITHA.	CSE
210	201FA04148	GOGINENI TEJASVI	CSE
211	201FA04151	JALADI LAHARI	CSE
212	201FA04152	JIDUGU GOWRI SANKARA NAGA RAJA SAI KUMAR	CSE
213	201FA04154	KALEPALLI SRAVYA BHAGYA LAKSHMI	CSE
214	201FA04156	KUNAPANENI SAHITHI	CSE
215	201FA04157	LAKSHMI SAHITHI LIKHYA P	CSE
216	201FA04159	ADITYARAM MADDINENI	CSE
217	201FA04160	MADDIREDDY VENKATA SESA SAI SRIJA	CSE
218	201FA04162	MUVVA VIDYA	CSE
219	201FA04163	NERELLA SUKESH	CSE
220	201FA04164	PATIBANDLA PRAVALLIKA	CSE
221	201FA04166	REDDY. BHAVANA	CSE
222	201FA04169	THAMMA SRI POOJITHA	CSE
223	201FA04170	TIRUMALASETTY PAVAN KUMAR	CSE

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224	201FA04171	TUBATI TEJ PAVAN	CSE
225	201FA04172	VADLAMUDI LAVANYA	CSE
226	201FA04175	VEERLA LAKSHMI NEEHARIKA	CSE
227	201FA04176	YENDLURI VENKATA SASIDHAR	CSE
228	201FA04177	YERUVA BABITHA SAGARIKA	CSE
229	201FA04178	MUDDHA SRESHTA	CSE
230	201FA04179	YARAGALLA KUMAR SAI	CSE
231	201FA04180	KANCHARLA MANIKANTA	CSE
232	201FA04181	GADIPARTHI REVANTH	CSE
233	201FA04183	KOTA GIRI VENKATA SAI YASWANTH	CSE
234	201FA04186	CHEGU MANASA	CSE
235	201FA04187	KODAVALI PRANATHI SATYA PRIYA	CSE
236	201FA04188	VENKATA NAGA PUSHYAMI SANIKOMMU	CSE
237	201FA04189	GANGIREDDY TEJA SRI	CSE
238	201FA04190	NAMBURI DILEEP VINAY KRISHNA	CSE
239	201FA04194	RAHUL KUMAR	CSE
240	201FA04195	YALAMOLU NAGA SAI VASISHTA CHOUDARY	CSE
241	201FA04199	NIMMAGADDA NIHARIKA	CSE
242	201FA04200	PANIDAPU SRIHARI	CSE
243	201FA04202	CHITTURI YESWANTH	CSE
244	201FA04203	TADEPALLI JAYA VENKATA SIVA SAI	CSE
245	201FA04204	PERURU BHAVYA	CSE
246	201FA04205	LINGA OMKAR	CSE
247	201FA04206	KONDA PRAVEEN REDDY	CSE
248	201FA04207	MURRA SNEHALATHA	CSE
249	201FA04208	VIJAYABHARATI K	CSE
250	201FA04211	KODURU SAI PRAMOD	CSE
251	201FA04212	BATCHU DURGA SAI KRISHNA	CSE
252	201FA04213	AVULA HARIKA	CSE
253	201FA04214	NAGARAJU NAGADEEPTHI	CSE
254	201FA04215	SATISH KUMAR MANNEM	CSE
255	201FA04216	BANDREDDY SAI BASAVIAH NAIDU	CSE
256	201FA04217	BANDREDDY LAVANYA	CSE
257	201FA04218	JARUGULA HARI CHANDANA	CSE
258	201FA04224	CHINTALAPATI VISHNU KAUSIK	CSE
259	201FA04225	CHINTALAPATI LALITHA KAUMUDI	CSE
260	201FA04226	G.MOUNIKA	CSE
261	201FA04227	MOLABANTI LEELA KRISHNA VAMSI	CSE
262	201FA04228	VIPPALA HARSHINI	CSE
263	201FA04229	GRANDISILA SOWMYA	CSE
264	201FA04231	LANKI REDDY SRIYA REDDY	CSE
265	201FA04233	GANIPISETTY AKASH M V L NARASIMHA NAIDU	CSE
266	201FA04234	SAHITHI BOYAPATI	CSE
267	201FA04235	VUNNAM VAMSI	CSE
268	201FA04237	ARADHYULA SRI KRISHNA TEJA	CSE
269	201FA04239	GATLA SAI NIHARIKA	CSE

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270	201FA04243	ANUBOTHU PRAVALLIKA	CSE
271	201FA04246	SHAIK.BIBI RESHMA	CSE
272	201FA04248	DARLA PHANI PRAHARSHA	CSE
273	201FA04253	EDE CHARAN SRI HARI	CSE
274	201FA04254	SHAIK SHAMRIYAZ	CSE
275	201FA04255	KOLISSETTY RAHUL	CSE
276	201FA04256	BHEEMANAPALLI RUKMINI	CSE
277	201FA04258	KANAKAM LAKSHMI	CSE
278	201FA04259	MADDI MADHURI	CSE
279	201FA04261	BODDEDA VENKATA SAI GANESH SASIDHAR	CSE
280	201FA04262	GOGINENI .RUSHITHA SRI	CSE
281	201FA04263	PAGADALA UDAY NANDAN	CSE
282	201FA04264	TANNIRU YASWANTH KRISHNA	CSE
283	201FA04265	SHAIK MOHAMMAD WASEEM AHAMED	CSE
284	201FA04266	GOGIREDDY SAISRUTHI	CSE
285	201FA04267	GADIYAMULA SIVA GANESWARA RAO	CSE
286	201FA04268	TIRUVANISSETTY AASITHA	CSE
287	201FA04269	BOPPUDI RUCHITHA	CSE
288	201FA04270	ARUMALLA KUSHAL CHOWDARY	CSE
289	201FA04271	ELURI RAJA SEKHAR	CSE
290	201FA04272	SHAIK MOHAMMAD KHAJA SHARIEF	CSE
291	201FA04273	BHAVIRISETTI VARA LAKSHMI	CSE
292	201FA04274	POLU VIJAY SHEKAR REDDY	CSE
293	201FA04275	PADMANABHUNI JEEVANI VENKATA NAGA SAI LAKSHMI	CSE
294	201FA04276	MANDADI SRINIVAS REDDY	CSE
295	201FA04277	GONDRALA MANASA PRIYA MOUNIKA	CSE
296	201FA04279	TORATI NAGAJA	CSE
297	201FA04280	JERRIPOTHULA YOGYATHA SREE	CSE
298	201FA04281	TADEPALLI LEELA VENKATA SAI TEJA	CSE
299	201FA04283	PAILA GEETHIKA SUPRIYA	CSE
300	201FA04284	KARI KAVYA SREE CHOWDARY	CSE
301	201FA04285	IKKURTHI CHARAN BABU	CSE
302	201FA04286	PUSULURI SADVIKA	CSE
303	201FA04287	ALLAMNENI SESWITHA	CSE
304	201FA04288	BETHAPUDI NIHARIKA	CSE
305	201FA04289	BONAM PRAVEEN KUMAR	CSE
306	201FA04290	NAGABHAIRU NAGA PHANEENDRA	CSE
307	201FA04291	CHAVA RANJITH KUMAR	CSE
308	201FA04292	PADALA JAI KRISHNA MANOJ REDDY	CSE
309	201FA04293	PONUGUPATI SUDARSHAN KUMAR	CSE
310	201FA04294	EMANI.DURGA SRINIJA	CSE
311	201FA04295	MUNNANGI LAKSHMI BHARGAVI	CSE
312	201FA04296	RENDEDDULA HEMA	CSE
313	201FA04297	KUCHIPUDI RAJYA LAKSHMI	CSE
314	201FA04298	CHANDU RISHITHA	CSE

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315	201FA04299	GANTA REVATHI NAIDU	CSE
316	201FA04300	PULIPAKA SRI LALITHA SASI VARDHINI	CSE
317	201FA04301	MUDRAGADA SHANMUKHA SAI PRIYA	CSE
318	201FA04303	SHAIK FAISAL	CSE
319	201FA04304	VULLAGANTI VENKATA SAI PRANEETA	CSE
320	201FA04305	MANNE VENKATA SIVA NAGA ROHITH	CSE
321	201FA04306	SHAIK YASEEN	CSE
322	201FA04307	NARLA VENKATA NAGA SAI SUMANTH	CSE
323	201FA04308	SANKA BARGHAV VENKATA SAIKRISHNA	CSE
324	201FA04309	CHOSHITHA ANISETTI	CSE
325	201FA04310	MADALA PRASANNA KUMAR	CSE
326	201FA04311	SHAIK IRSHAD	CSE
327	201FA04312	MUDRAGADDA DUNDI PAVANI	CSE
328	201FA04313	BAIREDDY KAVERI	CSE
329	201FA04314	SURAPANENI HEMASREE	CSE
330	201FA04315	NUTHALAPATI SAI KUMAR	CSE
331	201FA04317	RAMINENI SAI KAMAL	CSE
332	201FA04318	MUKKAPATI RAVINDRA	CSE
333	201FA04320	MYNAM SAHITHI	CSE
334	201FA04321	KATA NAGA SAI GANESH	CSE
335	201FA04322	CHEKKA ABHISHEK VARDHAN	CSE
336	201FA04323	ANNAPUREDDY SHIVA BHARGAVI	CSE
337	201FA04324	ANUMULA NARASIMHA REDDY	CSE
338	201FA04325	PAGADALA NARASIMHA RAO	CSE
339	201FA04326	INDALA JYOTHIRMAYEE	CSE
340	201FA04327	BURLAGADDA TEJA HARIKRISHNA	CSE
341	201FA04328	POLEPALLI GANESH VENKATA NAGA SURYA SAIRAM	CSE
342	201FA04329	CHAMAKURA RECHAL REDDY	CSE
343	201FA04331	SHAIK ADIL AZEEZ	CSE
344	201FA04333	POLAVARAPU NAGA MANASA	CSE
345	201FA04334	KONDRAGUNTA NEHA	CSE
346	201FA04335	KOTHURI VENKATA RAMA LAKSHMI LAVANYA	CSE
347	201FA04336	GUNJI SAILAJA	CSE
348	201FA04337	GUNJI SRINU	CSE
349	201FA04338	KURUGANTI SARATH KUMAR	CSE
350	201FA04339	SANIVARAPU SIVAKOTIREDDY	CSE
351	201FA04340	SAKHAMURI GOWTHAM	CSE
352	201FA04344	SINGAMSETTY SUSHUMNA	CSE
353	201FA04346	KATTA PRAVEEN KUMAR	CSE
354	201FA04348	ARAVAPALLI SURYA VINAY KUMAR	CSE
355	201FA04349	DESU VENKATA SAI NITHIN GUPTHA	CSE
356	201FA04350	PALETI NAGA NIKHITHA	CSE
357	201FA04351	BHARATH KUMAR BODDULURI	CSE
358	201FA04353	MADDIGAPU SAI LAKSHMI PRASANNA	CSE
359	201FA04354	BALA VENKATA BALLA REDDY	CSE

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360	201FA04355	AYINAMPUDI NAGA SRIVALLI	CSE
361	201FA04356	GHANTA JASWANTH SAI	CSE
362	201FA04357	KARISE SUMANA ANGEL	CSE
363	201FA04359	GORLA SANDYA RANI	CSE
364	201FA04360	SANTAPURAPU SRI LAKSHMI	CSE
365	201FA04361	KUNCHALA RAVI KIRAN REDDY	CSE
366	201FA04362	VISHAL JAISWAL	CSE
367	201FA04363	KOPPARTHI ASRITHA VRUNDA	CSE
368	201FA04364	KOLASANI SOWJANYA LAKSHMI	CSE
369	201FA04365	THUMMA MOHAN KRISHNA REDDY	CSE
370	201FA04366	SHAIK GOUSIA MUSKAN	CSE
371	201FA04367	GOTTAM GEETHA SRAVANI	CSE
372	201FA04369	RAVIPATI HIMA SHREE	CSE
373	201FA04370	ELCHURI MAHESH BABU	CSE
374	201FA04371	KOPPARTHI AMRUTHA SAI	CSE
375	201FA04373	MANCHINA HEMANTH	CSE
376	201FA04374	ICHAPURAM S HEMANTH	CSE
377	201FA04375	KOYA LEELA RAKESH	CSE
378	201FA04376	KUNAL JAYSWAL	CSE
379	201FA04377	SYED OSAMA	CSE
380	201FA04378	NITISH SHARMA	CSE
381	201FA04379	GARIGIPATI VIDYA	CSE
382	201FA04380	KAMISSETY RAMANJANEYULU	CSE
383	201FA04381	TALARI NITEESH VARSHAN	CSE
384	201FA04382	ALLA HEMA NISHITA	CSE
385	201FA04383	PASAM SAHITHI	CSE
386	201FA04384	PENUMARTHI GEETHA ANUSHA	CSE
387	201FA04387	GAVINI BHOMIKA	CSE
388	201FA04388	CHANDANAM SIVA SANKAR	CSE
389	201FA04389	YADLA LAKSHMI LIKHITHA	CSE
390	201FA04390	SIVANADHAM KAVYA	CSE
391	201FA04391	YASAM BHAVANA	CSE
392	201FA04392	GUBBA ABHIRAM	CSE
393	201FA04393	ADUSUMALLI THARUN NAIDU	CSE
394	201FA04394	JAVVAJI RAMESH REDDY	CSE
395	201FA04396	GULLIPALLI MOHAN	CSE
396	201FA04397	NANNEPAGA AKSHAY KIRAN	CSE
397	201FA04398	KOLLURI RAVI KIRAN	CSE
398	201FA04399	PATAN RAHATH ALI KHAN	CSE
399	201FA04400	CHEBROLU VIJAY KRISHNA	CSE
400	201FA04401	KOTHAPALLI RAGHAVA SRI VASTAV	CSE
401	201FA04403	PRABHAT KUMAR	CSE
402	201FA04405	PADARTHI SUDHA RANI	CSE
403	201FA04406	PONDURI SRI LAKSHMI TULASI	CSE
404	201FA04407	SHIVAM KUMAR	CSE
405	201FA04408	AMIT KUMAR	CSE

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406	201FA04409	SHIV SHANKAR KUMAR	CSE
407	201FA04411	RAMESH KUMAR	CSE
408	201FA04412	SHISHUPAL KUMAR	CSE
409	201FA04413	PREM RAJ	CSE
410	201FA04415	PRADEEP KUMAR	CSE
411	201FA04416	AKULA YESHWANTH	CSE
412	201FA04417	SRAVANI GAJULA	CSE
413	201FA04419	SHAIK RAJ SULTANA NOORANI	CSE
414	201FA04420	ARPIT	CSE
415	201FA04421	AMAN KUMAR	CSE
416	201FA04422	AAYUSHI SINGH	CSE
417	201FA04423	RAJU KUMAR SAH	CSE
418	201FA04424	ADITYA RAJ	CSE
419	201FA04425	PEDDOJU VENKATA NAGARAJUNA	CSE
420	201FA04427	SURE PAVAN MANOHAR	CSE
421	201FA04430	SANJEEV KUMAR	CSE
422	201FA04431	SURAJ PATEL	CSE
423	201FA04432	DIPU KUMAR	CSE
424	201FA04433	NITISH KUMAR	CSE
425	201FA04435	GHANTASALA BALA YASWANTH KUMAR	CSE
426	201FA04436	KAMBHAMPATI TARAKESWAR	CSE
427	201FA04438	SHAIK SRINIVASA BAJI	CSE
428	201FA04439	CHINTAPALLI RAMA KRISHNA	CSE
429	201FA04440	PULA SIDDARDHA	CSE
430	201FA04441	KAKUTURU VENKATA SAI PHANI GOWTHAM	CSE
431	201FA04442	JANGALA KUSUMA KUMARI	CSE
432	201FA04443	JANGALAPALLI HAMSINI	CSE
433	201FA04444	BEERAM VENKATA RAYUDU	CSE
434	201FA04445	PAINENI KALYAN CHOWDARY	CSE
435	201FA04446	TAMMISETTY VENKATESWARLU	CSE
436	201FA04447	PULICHARLA VENKATA SIVA KUMAR	CSE
437	201FA04448	DAMMALAPATI AKHILA	CSE
438	201FA04450	POPURI APARNA	CSE
439	201FA04451	GOTTAM LAVANYA	CSE
440	201FA04452	KUMMARI PRAVALLIKA	CSE
441	201FA04453	YENDLURI VINOD	CSE
442	201FA04454	KOTA PAVAN NAGA PRANEETH	CSE
443	201FA04455	POTTABATTINA NEERAJ	CSE
444	201FA04456	REDDY RAJESWARI	CSE
445	201FA04457	CHINAMANAGONDA NAGA ALEKHYA	CSE
446	201FA04458	VINNAKOTA LOKESH	CSE
447	201FA04459	KONDIBOINA DIVYA SHRI	CSE
448	201FA04460	MUTYALAPATI SAI KRISHNA CHAITANYA	CSE
449	201FA04461	VIPPARLA AJAY KUMAR	CSE
450	201FA04462	ARIMANDA DHEERAJ REDDY	CSE
451	201FA04463	ARIGELA MANIKANTA	CSE

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452	201FA04465	THANGA SRIVALLI	CSE
453	201FA05001	AVULA GEETHIKA	ECE
454	201FA05003	BAPANAPALLI ABHIGNU	ECE
455	201FA05004	BHAVANAM DEEPAK REDDY	ECE
456	201FA05005	BOMMAGANTI KEERTHANA	ECE
457	201FA05006	BOREDDY VENKATA UMESH REDDY	ECE
458	201FA05007	CHINNAMSETTY RAVI KUMAR	ECE
459	201FA05008	DASARI KAIVALYA	ECE
460	201FA05010	DONDETI HARSHA VARDHINI	ECE
461	201FA05013	GANGISETTY VASUDHA	ECE
462	201FA05014	GAYATHRI GOPISETTY	ECE
463	201FA05015	GRANDHI SANJAY	ECE
464	201FA05016	GUDIBANDI AVINASH BHARGAV REDDY	ECE
465	201FA05017	JABA SRI VENKATA SHIVA NAGA TARUN	ECE
466	201FA05019	KETINENI VENKATA SAI DATHU	ECE
467	201FA05020	KURANGI SAI PUNEETH	ECE
468	201FA05021	MADDI POOJA SREE	ECE
469	201FA05022	MADDULA CHARITHA	ECE
470	201FA05029	PALLAPOTHU DEVESWARA HARIKRISHNA	ECE
471	201FA05030	PEDDIRAJU V LAKSHMI NARASIMHA SATYADEV	ECE
472	201FA05031	POPURI SYAM SAI	ECE
473	201FA05032	ROMPICHARLA NAGA MANJEERA	ECE
474	201FA05033	SAKIRI MOHAN CHANDRA BALA NAIDU	ECE
475	201FA05036	SHAIK MAHAMMAD MASTAN	ECE
476	201FA05038	SHAIK MUBEENA	ECE
477	201FA05040	SHAIK RAFEEJA	ECE
478	201FA05042	THUMMA MARIYAMANASA	ECE
479	201FA05043	VAKKANTI LAKSHMI REVANTH KUMAR	ECE
480	201FA05045	SIVARATRI VENKATA SIVAJI	ECE
481	201FA05046	CHUKKA YESWANTH VENKATA GANESH	ECE
482	201FA05047	PAGADALA RAJESH BABU	ECE
483	201FA05048	SHAIK AHMAD ALISHA	ECE
484	201FA05051	DANABOINA HEMANTH	ECE
485	201FA05052	CHILLARA SAI SIVA RAM	ECE
486	201FA05053	KANNEGANTI SRINIVAS CHOWDARY	ECE
487	201FA05056	VANIPENTA SAI KIRAN REDDY	ECE
488	201FA05057	SHAIK BAJI	ECE
489	201FA05058	KINNERA MANASWINI	ECE
490	201FA05059	BADUGU RAHUL	ECE
491	201FA05061	GALI SAI AJAY	ECE
492	201FA05066	MOHAMMAD IBRAHIM	ECE
493	201FA05067	TANGALLAMUDI RAMA SAI	ECE
494	201FA05070	KONDA SRI LATHA	ECE
495	201FA05071	PATHAN VASEEMA	ECE
496	201FA05074	PADIDAPU BHARGAV RAM	ECE

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497	201FA05075	SHAIK ARSHIYA	ECE
498	201FA05076	DONTHINENI SIVA KRISHNA	ECE
499	201FA05077	SHAIK MUSTAFA	ECE
500	201FA05078	CHIKKAM SAI MANIKANTA	ECE
501	201FA05080	NARRA SRI HARI	ECE
502	201FA05081	MARADANI ANUSHA	ECE
503	201FA05082	GUTTA SINDHU	ECE
504	201FA05083	PATAKAMURI NEELIMA	ECE
505	201FA05085	BATHINA SUMANTH	ECE
506	201FA05086	SADHU JAYA AJAY KUMAR	ECE
507	201FA05087	SHAIK MAHAMMAD MARUF	ECE
508	201FA05088	VASIREDDY YASWANTH	ECE
509	201FA05090	YARRAMANAYUNI DILEEP	ECE
510	201FA05092	MONU KUMAR	ECE
511	201FA05093	DANTLA SUDHAKAR REDDY	ECE
512	201FA05094	BODALA MEGHANA	ECE
513	201FA05095	VEDAGIRI DIVYA	ECE
514	201FA05096	VEPURI SATISH	ECE
515	201FA05097	PULUGU SIRISHA	ECE
516	201FA05098	JALLELA VENKATA MALLIKHARJUNA	ECE
517	201FA05099	VEERANKI GOPINADH	ECE
518	201FA05101	DASARI HEMA SUGANDHA	ECE
519	201FA05103	KELLA TRINATH	ECE
520	201FA05104	MADATALA TEJA REDDY	ECE
521	201FA05105	ANNAM AKASH	ECE
522	201FA06003	VEJENDLA AKASH	EEE
523	201FA06005	AHMED NADIR ABDELMAGID MOHAMED	EEE
524	201FA06007	ADDEPALLI VASAVI KALYANI	EEE
525	201FA06008	BANTY KUMAR PRASAD	EEE
526	201FA07001	ALLA SRINADH MANI KUMAR REDDY	IT
527	201FA07003	GUDIPATI RISHI KESAVA	IT
528	201FA07004	JALADI DEEPAKSAI	IT
529	201FA07005	NAGA SAI SIDDARDH RAVULAPALLI	IT
530	201FA07006	SHAIK MOHAMAD AMEED	IT
531	201FA07007	SYKAM SAI MANOJ	IT
532	201FA07008	KONGARA YUGANDHAR CHOWDHARY	IT
533	201FA07009	RAVELLA BHAVANA	IT
534	201FA07010	SIMHADRI AJAY CHOWDARY	IT
535	201FA07012	SUSMITHA NARISSETTY	IT
536	201FA07013	YARAGALLA HEMA SAI	IT
537	201FA07014	YERUVA SRINIVAS REDDY	IT
538	201FA07017	M LAKSHMI ALEKYA	IT
539	201FA07019	NARAYANAPURAM VEERANJANEYULU	IT
540	201FA07020	PEDDINENI SRIRAM	IT
541	201FA07021	SHAIK JOHN SHAI DA	IT
542	201FA07023	ALLA MOKSHITH NAGA SAI	IT

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543	201FA07024	BUDDA SUSHMA	IT
544	201FA07025	ELUMALAI HARSHINI	IT
545	201FA07026	KOTA TIRUMALA SRINIVAS	IT
546	201FA07027	KOTAVENKATA NARENDRA NADH	IT
547	201FA07028	KUMBHA DIVYA SREE	IT
548	201FA07029	LACHI VENKATA SIVA KUMAR	IT
549	201FA07031	SHAIK FARIYAN BASHA	IT
550	201FA07032	GADA SOHIT CHOWDARY	IT
551	201FA07033	DHEEKONDA.MURALI VENKATA SAI KRISHNA	IT
552	201FA07034	KARTHIK REDDY VANUKURI	IT
553	201FA07035	MUVVA SASHANK CHOWDARY	IT
554	201FA07036	PARI POOJITHA	IT
555	201FA07038	NAMBURI SRI RAM	IT
556	201FA07040	MANNE RUPA CHOWDARY	IT
557	201FA07042	GANESUNI SANJANA	IT
558	201FA07043	YALAMARTHI SHANMUKHA SRI SAI RAMA KRISHNA	IT
559	201FA07044	UPPALA BHAVITHA	IT
560	201FA07045	SADINENI TRIVIKRAM	IT
561	201FA07046	MURAKONDA BHANU PRAKASH	IT
562	201FA07047	INTURI ASHISH	IT
563	201FA07049	BAVIRISETTY PRASANNA KUMAR	IT
564	201FA07050	VED PRAKASH SONI	IT
565	201FA07052	ANUVALASETTY NAGA HARSHITH VARDHAN	IT
566	201FA07053	VALETI VISHNU VIVEK	IT
567	201FA07055	BATTULA AJITHA SRI	IT
568	201FA07056	RAYAPATI LIKHITHA	IT
569	201FA07057	KAKANI NAVYA SRI	IT
570	201FA07058	JETTI BHARATH KUMAR	IT
571	201FA07059	JERRIPOTHU THARUN KUMAR	IT
572	201FA07060	ARI NAGAJAJILLI	IT
573	201FA07061	CHEGIREDDY SAHITHI	IT
574	201FA07062	CHINTAKUNTLA VIVEK REDDY	IT
575	201FA07064	DAMULURI YASWANTH	IT
576	201FA07065	KOPANATHI GURU VARDHAN	IT
577	201FA07066	NAMANA LOKESWARA RAO	IT
578	201FA07067	BALIJEPALLI HRUSHITHA	IT
579	201FA07068	KATIKA KALESWARAMMA	IT
580	201FA07069	RASAMSETTY G V L BHARATH	IT
581	201FA07070	UPPALA ESWAR BASAVA KUMAR	IT
582	201FA07072	NALLURI ABHINAV	IT
583	201FA07073	CHALLAPALLI ASA LATHA	IT
584	201FA07075	JUHI KUMARI	IT
585	201FA07076	RAUSHAN KUMAR MAURYA	IT
586	201FA07077	SAKHAMURI DIVYA SREE	IT
587	201FA07078	VIKASH KUMAR	IT

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588	201FA07079	SAKHAMURI KIRAN KUMAR	IT
589	201FA07080	GADDIPATI SAMPATH	IT
590	201FA07081	VIKRAMADITYA KUMAR	IT
591	201FA07082	RANJEET KUMAR DAS	IT
592	201FA07083	PRAMOD KUMAR	IT
593	201FA07084	BOYINA USHA SRI	IT
594	201FA07085	MEDAM LAKSHMI LAHARI	IT
595	201FA07087	KUNITA RAO	IT
596	201FA07088	VEMURI S K V S P SANTHOSH	IT
597	201FA07089	PEDAPAGA AJITH BABU	IT
598	201FA07090	NANDARAPU GOPI CHANDU	IT
599	201FA07091	BAYYAPUNENI RAVI KUMAR	IT
600	201FA08001	GARIKAPATI RAKESH	MECH
601	201FA08002	RAYAVARAPU MURALI KARTHIK	MECH
602	201FA08003	VADLAMUDI NISHIT PRASAD	MECH
603	201FA08004	POLISSETTY MOHAN SAI SANKAR	MECH
604	201FA08007	SYED NAVEED SOHAIL	MECH
605	201FA08008	PRABHAS VISWAKARMA TEKI	MECH
606	201FA08009	VIKASH KUMAR	MECH
607	201FA10001	SHAIK FAROOK	AME
608	201FA10003	KANIKELLA VARSHITHA	AME
609	201FA10004	GANTA RAMESH BABU	AME
610	201FA10005	JANGAM AKSHAY	AME
611	201FA12002	KRISHNA KUMAR	AG
612	201FA12003	POKALA VENKATA NAGA LAKSHMI	AG
613	201FA12004	QUSI KUMARI	AG
614	201FA12005	SHUBHAM KUMAR	AG
615	201FA12006	SUDANAGUNTA NAMITHA SAI	AG
616	201FA12007	SURYADEVARA JAHNAVI	AG
617	201FA12008	THOTAKURA BHARATH CHAND	AG
618	201FA12009	VALLURU NAGA VENKATANADH	AG
619	201FA12011	VIKASH UPADHYAY	AG
620	201FA12012	BHANU BAVIGHNA TAMMINI	AG
621	201FA12013	KATRAGADDA KALYAN	AG
622	201FA12014	KANNEGANTI PAVAN	AG
623	201FA12016	LAKSHMI TULASI PADUKANTI	AG
624	201FA12017	RAJENDRA BABU PANCHUMARTHI	AG
625	201FA12018	POTPELLY KARTHIK	AG
626	201FA12019	PADAMATA NAGA VASU KIRAN	AG
627	201FA12020	PUNATI KATHYAYANI	AG
628	201FA12021	DASARI CHANDRA SEKHAR	AG
629	201FA12022	SHABNUM TABASSUM	AG
630	201FA12023	MOLAKALAPALLI VARASIDDI CHARAN CHOWDARY	AG
631	201FA12024	THAKKELLAPATI SUBBA NAIDU	AG
632	201FA14001	A KEERTHI MEGHANA	BI

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633	201FA14002	SURASANI VARUN KUMAR REDDY	BI
634	201FA14003	DEVALLA HARSHINI KRISHNA SAI	BI
635	201FA14004	VIDYA EEDALA	BI
636	201FA14005	SAHU ANURAG PITABASA	BI
637	201FA14006	UDUMULA ARUN KUMAR REDDY	BI
638	201FA14007	ALA SAI SRAVYA	BI
639	201FA14008	DHANIREDDY SRUJANA REDDY	BI
640	201FA14009	GEETHIKA GAYATRI PADALA	BI
641	201FA14010	CHADALAVADA ROOPA	BI
642	201FA14011	KORRAPATI MEGHANA	BI
643	201FA14012	KOLLIPARA RAJ SIVANI	BI
644	201FA14013	BHOGARAJU SURYA PRAVALLIKA	BI
645	201FA14014	S S N V SASANKITHA JUVVA	BI
646	201FA14016	CHIRALA SRAVANI	BI
647	201FA14017	DASARI SAI SWAPNA	BI
648	201FA14018	MANGAMURI SATYA TULASI	BI
649	201FA14019	TAMMANA PURNA VENKATA SAI PUJITHA	BI
650	201FA14020	MALLINENI SRI MOUNIKA	BI
651	201FA14021	MUPPANENI DEEPTHI KUMARI	BI
652	201FA14022	RANGISETTY PRANAYATHARA	BI
653	201FA14023	NANDIMANDALAM TEJASWI	BI
654	201FA14024	BHAVANAM DIVYA SAISRI	BI
655	201FA14025	NANDYALA VENI	BI
656	201FA14026	YARRAMSETTY MANOJ KUMAR	BI
657	201FA14028	NALLAGATLA SIVA RAMAKRISHNA	BI
658	201FA14030	GADI ADITYA VARMA	BI
659	201FA14031	BOTIKA SRI CHARAN	BI
660	201FA14032	CHUNDURU MADHAN	BI
661	201FA14033	ARUDRA LAKSHMI POOJITHA	BI
662	201FA14034	VUNDAVALLI SHARADA	BI
663	201FA14035	BOYELLA VISHNU TEJA REDDY	BI
664	201FA14036	KILAPARTHI ASRITA	BI
665	201FA14037	C VENKATA SRIHITHA	BI
666	201FA14038	CHATAKONDU SRIJA	BI
667	201FA14039	KONDA MEENAKSHI RISHITHA	BI
668	201FA14040	SHAIK GOUSE MOHIDDIN BASHA	BI
669	201FA14041	CHENGARI SAI HIMAJA	BI
670	201FA14042	GUDIPATI DURGA MALLESWARAO	BI
671	201FA14043	AKULA SREE VIDYA	BI
672	201FA14044	KORNAGANTI CHANDU	BI
673	201FA15002	CHIKKU VENU	FT
674	201FA15003	KODALI SANJAY	FT
675	201FA15005	KOTA AISHWARYA	FT
676	201FA15006	MADALA LIKHITHA	FT
677	201FA15007	SAI GANESH UPPUTURI	FT
678	201FA15008	SHAIK SABIYA	FT

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679	201FA15009	TARSHITA VALLABHANENI	FT
680	201FA15010	VATTIGUNTA SRI LAKSHMI	FT
681	201FA15011	SREE GANGOTHRI POLIREDDY	FT
682	201FA15012	AKSHATH GEORGE	FT
683	201FA15013	KUNDETI YAMINI	FT
684	201FA15016	JOEL K. AJI	FT
685	201FA15017	ROHN JAMES	FT
686	201FA15019	SHAIK AYESHA SULTANA	FT
687	201FA15020	VADDEPALLI YAMINI LAKSHMI PRASANNA	FT
688	201FA15021	ALAN K DOMINIC	FT
689	201FA15022	MANNAM LASYA CHOWDARY	FT
690	201FA15023	TATIKONDA SRIYA	FT
691	201FA15024	MALLAMPATI JWALITHA	FT
692	201FA15026	CHUNDRU SAI SANNITHA	FT
693	201FA15027	TIRUVEEDHULA POOJITHA	FT
694	201FA15028	PAVANI BOYAPATI	FT
695	201FA15029	KOTLA SAHITHI REDDY	FT
696	201FA15030	KANCHARLA KAVYA	FT
697	201FA15031	BATHINI BINDU BHARGAVI	FT
698	201FA15032	KOTAGIRI.SAI BHARGAVI	FT
699	201FA15033	KAMBHAMPATI LIKHITHA	FT
700	201FA15034	MOHAMMAD ATHIYA FATHIMA	FT
701	201FA15035	MEGHANA PULAGAM	FT
702	201FA15036	CHALLAGUNDLA ASHOK KUMAR	FT
703	201FA15037	VAHINI NUNNA	FT
704	201FA15039	ARUMALLA MAHESH BABU	FT
705	201FA15040	HIMABINDU ACHANTA	FT
706	201FA15043	BELLAMKONDA VISHNU PRIYA	FT
707	201FA15044	PALLAMPARTHY SRI VARDHAN REDDY	FT
708	201FA15045	ALLIPURAM ABHINAVA SAI	FT
709	201FA15046	GOKARNAM HIMAJA	FT
710	201FA15047	SAIDU MEENAKSHI	FT
711	201FA15049	KONAKANCHI SAI KUMARI	FT
712	201FA15050	DOKUPARTHI BHUVANESWARI	FT
713	201FA15051	NALLAGONDA RAJYALAKSHMI	FT
714	201FA15052	VAKA AMULYA	FT
715	201FA15053	BATTU LAVANYA SAI	FT
716	201FA15054	SYED RIYAZ AHAMMED	FT
717	201FA15055	MANDRU JASWITH SAI	FT
718	201FA15056	MUTYAM SHARON ROJE	FT
719	201FA15060	MOHAMMED USMAN AYAZ CHISTI	FT
720	201FA15061	PAPANA BAVITHA SUBHA	FT
721	201FA15062	POTNURU VENKATA MEGHANA	FT
722	201FA15063	BALARAJU DINEESHA	FT
723	201FA15064	LAMBU POOJA	FT
724	201FA15065	DOMASANI VENU KIRANKUMAR	FT

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725	201FA15068	RAYIDI KAVYA SREE	FT
726	201FA15069	MADARGARI YUNUS	FT
727	201FA15070	MAKKENA SUSMITHA	FT
728	201FA15072	SHAIK NIDHA ANJUM	FT
729	201FA15073	DIVI SWETHA	FT
730	201FA15075	BOMMAREDDY RESHMA REDDY	FT
731	201FA15076	KOTHA SRAVANI	FT
732	201FA15077	KONDRU MEGHANA	FT
733	201FA15078	SINGATHALA PAVAN KALYAN REDDY	FT
734	201FA15079	KOWTHARAPU VARALAKSHMI	FT
735	201FA15080	GOPALAPPAGARI UDAY	FT
736	201FA15081	GONGALREDDY JYOTHIRMAI	FT
737	201FA15082	YARRAGOTI PRADEEP KUMAR	FT
738	201FA15083	CHENNUPATI PAVANI VENKATA LAKSHMI PRIYA	FT
739	201FA15084	MANUKONDA BHAVYA SRI	FT
740	201FA15085	KALLAM CHAITANYA	FT
741	201FA15086	SHAIK FOUZIYA SULTANA	FT
742	201FA15087	GNANESWARI JANAPALA	FT
743	201FA15088	BUDIDHA GOVARDHAN	FT
744	201FA15089	SAI PREETHAM CHALLAGUNDLA	FT
745	201FA15090	CHINKA BRAHMANI	FT
746	201FA15091	KONCHADA ISWARYA	FT
747	201FA15092	ANUMALAGUNDLA NAYAB PRASAD	FT
748	201FA15093	KARRI SARANYA	FT
749	201FA15094	GUJJARLAPUDI VISHNU PRIYA	FT
750	201FA15095	PAGIDIPALA SAI SUPRIYA	FT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Quiz and Painting Competitions in Schools**

Date: 28.08.2023

Venue: ZPHS Vejjandla

On the occasion of our honourable chairman Dr. LavuRathaiiah's birthday, Quiz and painting competitions were conducted on 22.07.23 and 26.07.23 in the Vejjandla and Garuvapalem ZP High Schools by team UEAC.

These competitions were conducted for grade 9 students. All the new team members participated in this event. A total of 40 members attended this event, they were divided into groups to monitor the students. All the participants were highly enthusiastic to make it a big success. Students were made into groups, and the questions were asked for each group. To conclude this program prizes were distributed to the winners on 28.08.2023.

A total of 32 students participated in this event. A painting competition was conducted to know the drawing skills of the students apart from their academics. There was great support from the school faculty and principal.



Quiz and Painting Competitions on 28.08.2023

List of Volunteers:

Quiz and Painting Competitions on 28.08.2023			
S.No	Reg.No	Name of the Student	Branch
1	201FA01043	KOGANTI NAGA CHAITANYA	BIOTECH
2	211FA01127	POTHINENI SAI AMULYA	BIOTECH
3	211FA01129	VAISHNAVI BEHARA	BIOTECH
4	211FA01132	MYLAGANI REENA	BIOTECH
5	211FA01133	MANGLAM MANU	BIOTECH
6	211FA01093	PASALAPUDI TEJA SATYA SRI	BIOTECH
7	211FA01098	GOGINENI SRI THANMAI	BIOTECH
8	211FA01099	BEERAVALLI VENKATA RAMI REDDY	BIOTECH
9	211FA01108	GUDARU SAILAJA	BIOTECH

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10	211FA01110	CHUNDURU HARSHINI	BIOTECH
11	211FA01039	GADDE SATHWIK	BIOTECH
12	211FA01040	GANJAM ANANTHA SAINADH	BIOTECH
13	201FA01012	CHERUKURI KARTHIK	BIOTECH
14	201FA01051	KOGANTI NAGA PRAVALLIKA	BIOTECH
15	201FA01052	MODALA VENKATA SAI ALEKHYA	BIOTECH
16	201FA01053	KOTHA VENKATA AKANKSHA	BIOTECH
18	221FA01084	RAVIPATI SAI VYSHNAVI	BIOTECH
19	221FA01098	NIRMITHA JYOSTHNA	BIOTECH
20	221FA01083	SWARNA POLAROWTHU	BIOTECH
21	221FA01100	PRANITHA YAKKATI	BIOTECH
22	221FA01080	MOUNICA	BIOTECH
23	221FA01132	DEEKSHITHA VYSHNAVI	BIOTECH
24	201FA01053	KOTHA VENKATA AKANKSHA	BIOTECH
25	201FA01054	MUNAGALA VARSHITHA	BIOTECH
26	201FA01055	BOYAPATI JESWANTH PHANI	BIOTECH
27	201FA01056	THATIKONDA SRILEKHA	BIOTECH
28	201FA01057	BATTULA SAI DIVYA	BIOTECH
29	201FA01058	SYED VAHEED	BIOTECH
30	201FA01120	MALLEMKONDU VENKATA SAI SUMA SRI	BIOTECH
31	201FA01121	KASVA DIVYA SREE	BIOTECH
32	201FA01122	KILLI GOWTHAMI	BIOTECH



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Mobile Addiction**

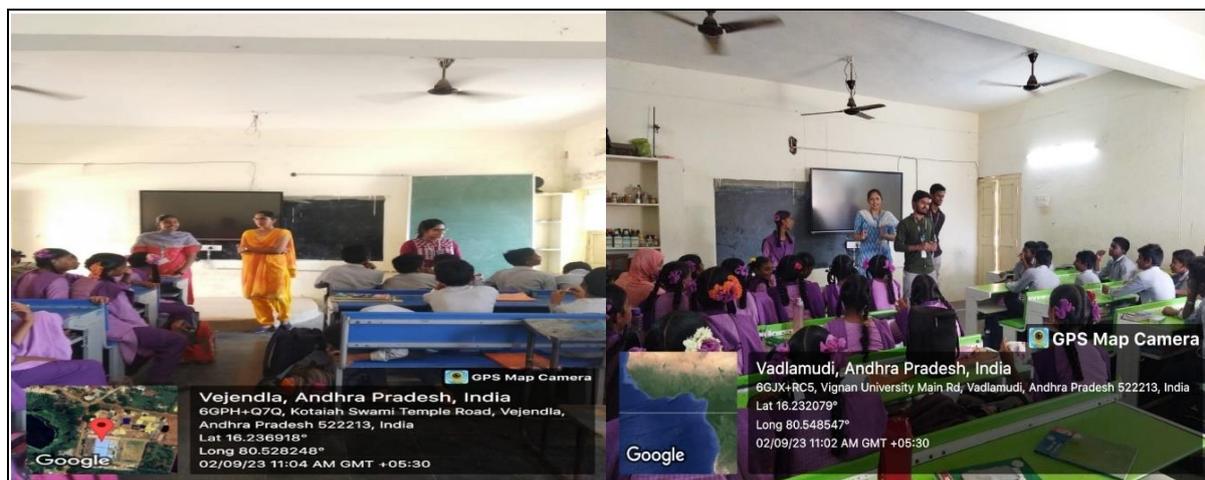
Date: 02.09.2023

Venue: Vejendla, ZPHS

On the 2nd of September 2023, Awareness on mobile addiction was organized by the ECE department of NSS-UEAC wing in the nearby Vejandla village. This event aimed to create awareness on mobile addiction and to provide awareness among the students, reducing the health problems caused using smartphones and educating the students on the proper use of smartphones. The target audience for this event was the students in the nearby government school of Vignan's University.

This event began at 10:30 AM with a brief introduction about the NSS program and the significance of the event, with a total of 30 NSS coordinators and volunteers. The NSS unit has reached a total no of 300 students of class 8,9 from the nearby government school for this event.

After the introduction, the awareness on mobile addiction begins. The attendees were provided with a brief about this event by explaining the harmful effects of over usage of mobile phones. This was delivered by the NSS coordinators and the Volunteers. In Conclusion, the awareness on mobile addiction event organized by Team NSS of the ECE department of Vignan University was a successful event that created awareness on mobile addiction and the harmful effects of overuse of mobile phones.



Awareness on Mobile Addiction at Vejendla ZPHS on 02.09.2023

List of volunteers:

Awareness on Mobile Addiction at Vejendla ZPHS on 02.09.2023			
S.No	Reg.No	Name of the Student	Branch
1	211FA04425	D.SNEHA NAVYA SRI	ECE
2	211FA04448	G.AKHILA	ECE
3	211FA04473	V.KRISHNA LIKHITHA	ECE
4	211FA04497	A.THRIVENI	ECE
5	211FA04597	Y.SNEHA LATHA	ECE
6	211FA04600	CH.HIMAJA	ECE
7	211FA04502	K.NIHARIKA	ECE

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8	211FA04503	T.NAGA SRIDEVI	ECE
9	211FA04272	K.AKSHAY KUMAR	ECE
10	211FA04243	V.MANIKANTA	ECE
11	211FA04505	G.MADHURI	ECE
12	211FA04522	M.VENKATESH	ECE
13	211FA04390	P.YOGESHWAR	ECE
14	211FA04363	M.ROSHINI	ECE
15	211FA04394	CH.MANOJ	ECE
16	211FA04395	A.KOTI REDDY	ECE
17	211FA04396	SK.SAMIYAN	ECE
18	211FA04355	CH.VIJAY	ECE
19	211FA04371	V.MANJUNADH	ECE
20	211FA04100	S.AKANKSHA	ECE
21	201FA05043	VAKKANTI LAKSHMI REVANTH KUMAR	ECE
22	201FA05104	MADATALA TEJA REDDY	ECE
23	201FA05092	MONU KUMAR	ECE
24	201FA05093	DANTLA SUDHAKAR REDDY	ECE
25	201FA05094	BODALA MEGHANA	ECE
26	201FA05103	KELLA TRINATH	ECE
27	201FA05104	MADATALA TEJA REDDY	ECE
28	201FA05105	ANNAM AKASH	ECE
29	201FA06003	VEJENDLA AKASH	ECE
30	201FA05046	CHUKKA YESWANTH VENKATA GANESH	ECE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Higher Education**

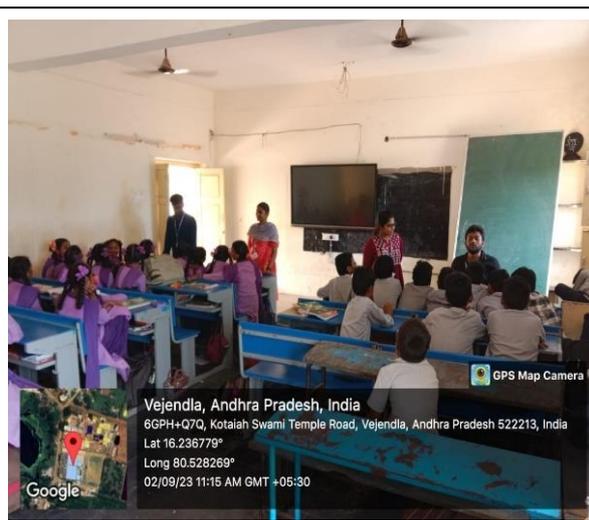
Date: 02.09.2023

Venue: Vejudla

On the 2nd of September 2023, Awareness on Higher Education was organized by the ECE department of UEAC wing in the nearby Vejudla village. This event aimed to create awareness on Higher education and to provide brief information about higher education among the students. The target audience for this event was students in the nearby government school of Vignan's University.

This event began at 11:30 AM with a brief introduction about the NSS program and the significance of the event, with a total of 30 NSS coordinators and volunteers. The NSS unit has reached a total no of 300 students of class 8,9 from the nearby government school for this event. After the introduction, the awareness on Higher education begins. The attendees were provided with a brief about this event by explaining the importance of education and higher education. This was delivered by the NSS coordinators and the Volunteers.

In Conclusion, the awareness on Higher education event organized by Team NSS of the ECE department of Vignan University was a successful event that created awareness on Higher education and the importance of Higher education.



Awareness on Higher Education in Vejudla, ZPHS on 02.09.2023

List of volunteers:

Awareness on Higher Education in Vejudla, ZPHS on 02.09.2023			
S.No	Reg.No	Name of the Student	Branch
1	211FA04425	D.SNEHA NAVYA SRI	ECE
2	211FA04448	G.AKHILA	ECE

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3	211FA04473	V.KRISHNA LIKHITHA	ECE
4	211FA04497	A.THRIVENI	ECE
5	211FA04597	Y.SNEHA LATHA	ECE
6	211FA04600	CH.HIMAJA	ECE
7	211FA04502	K.NIHARIKA	ECE
8	211FA04503	T.NAGA SRIDEVI	ECE
9	211FA04272	K.AKSHAY KUMAR	ECE
10	211FA04243	V.MANIKANTA	ECE
11	211FA04505	G.MADHURI	ECE
12	211FA04522	M.VENKATESH	ECE
13	211FA04390	P.YOGESHWAR	ECE
14	211FA04363	M.ROSHINI	ECE
15	211FA04394	CH.MANOJ	ECE
16	211FA04395	A.KOTI REDDY	ECE
17	211FA04396	SK.SAMIYAN	ECE
18	211FA04355	CH.VIJAY	ECE
19	211FA04371	V.MANJUNADH	ECE
20	211FA04100	S.AKANKSHA	ECE
21	201FA05043	VAKKANTI LAKSHMI REVANTH KUMAR	ECE
22	201FA05104	MADATALA TEJA REDDY	ECE
23	201FA05092	MONU KUMAR	ECE
24	201FA05093	DANTLA SUDHAKAR REDDY	ECE
25	201FA05094	BODALA MEGHANA	ECE
26	201FA05103	KELLA TRINATH	ECE
27	201FA05104	MADATALA TEJA REDDY	ECE
28	201FA05105	ANNAM AKASH	ECE
29	201FA06003	VEJENDLA AKASH	ECE
30	201FA05046	CHUKKA YESWANTH VENKATA GANESH	ECE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on E Waste**

Date:12.09.2023

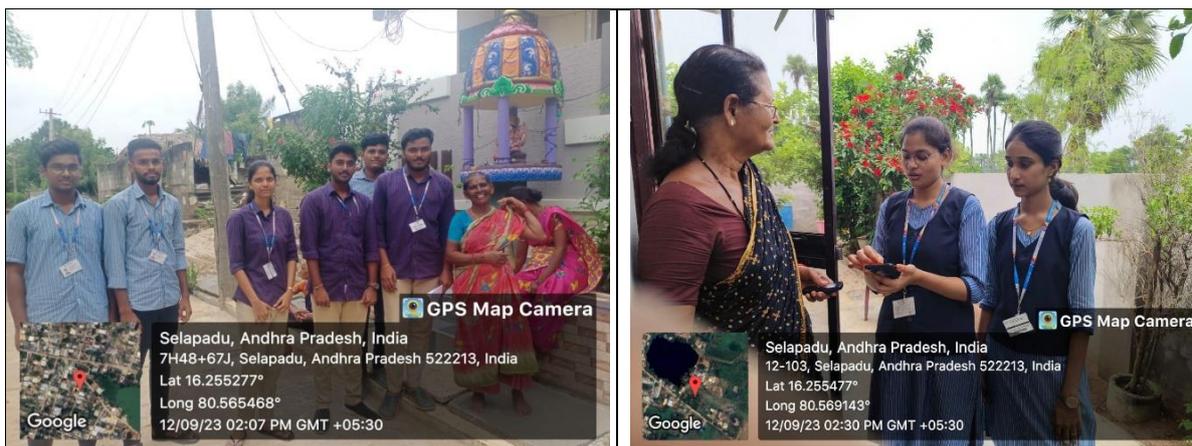
Venue: Selapadu

On September 12, 2023, the ACSE department of UEAC team organized an awareness camp to raise awareness on the problems and awareness levels related to electronic waste, or "E-Waste". The goal of the activity is to give a thorough overview of electronic waste, or "E-Waste." To effectively address and overcome these challenges, it is crucial to comprehend the degree of awareness and information regarding them.

It has been organized to bring awareness about critical issues faced by today's society. The event was held in Selapadu village at 1:30 PM. A total of 41 members gets involved in the event. That includes section coordinators and two volunteers per section from the ACSE department. The event was conducted to increase concern in today's digitally driven world about how E-Waste poses environmental and health risks.

The Program commences with Assemble every one of the NSS (Volunteers and Members) and at 1:00 PM the dividing of groups takes place according to the disciplines of the branches and each group has contributed their efforts to make people understand E-waste. By 3:30 PM, all of them came back to college, to report their respective chief organizers.

Thereby after a small interaction with the NSS core team and an appreciation for the accomplishment of the event further proceeded by taking a few photographs Finally Everyone was dispersed to their respective classes with a thank you note.



Awareness on E Waste at Selapadu on 12.09.2023

List of Volunteers:

Awareness on E Waste at Selapadu on 12.09.2023			
S.No	Reg.No	Name of the Student	Branch
1	221FA19022	GADIPUDI VINEELA CHOWDARY	ACSC
2	211FA19010	PALEM ANNJANA	ACSC
3	221FA19025	YANDRAPU MAHESH	ACSC

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4	221FA19030	GEDELA SIVA NAGA SAI NITEESH BABU	ACSC
5	221FA19045	PULUGU SIRIVARSHINI	ACSC
6	221FA19063	LAVU UHA SARANYA	ACSC
7	221FA19013	POLEPALLI NARASIMHA RAO	ACSC
8	221FA20064	PATIBANDLA SAI DEEPAK	ACSC
9	221FA20014	MALINENI SRIHARI	ACSC
10	221FA20015	REDDY BHARGAV	ACSC
11	221FA20016	KOLA VARUN KUMAR REDDY	ACSC
12	221FA20017	SWARNA SRI KAVYA	ACSC
13	221FA20018	NARAYANAM LASYA	ACSC
14	201FA19033	ANAPA LIKITHA	ACSC
15	211FA19001	KOTAMRAJU UMESH CHANDRA	ACSC
16	211FA19008	SAKALA VASU VAMSI KRISHNA	ACSC
17	211FA19009	GOGADA JYOTHI SUBRAHMANYAM SAI	ACSC
18	221FA19024	GOGINENI HARI PRASAD	ACSC
19	211FA19011	KALLAM THANUJA	ACSC
20	211FA19012	KOVVURI SHANMUKHA SAI KUMAR REDDY	ACSC
21	221FA19046	DEVABHAKTUNI AMAR SAI CHOWDARY	ACSC
22	221FA19047	KAMINENI BABY TEJASWI	ACSC
23	221FA19059	YARRAM VENKATA VAMSIDHAR	ACSC
24	201FA20007	PACHIPULUSU MANASA MEGHANA	ACSC
25	201FA19032	MAKANI HITESH HARI HARANANDH	ACSC
26	221FA19052	VADDURI VENKATA GIRISH	ACSC
27	221FA19053	YADLAPALLI VISHNU VARDHAN	ACSC
28	221FA19054	ADARAPU SANDEEP	ACSC
29	201FA19020	GANDI SHIVA PADMA RAJA MANIKANTA	ACSC
30	221FA19048	KAMINENI LEELA TAPASWI	ACSC
31	221FA19060	CHIMATA OMKAR LAKSHMI	ACSC
32	221FA19061	MIRIYALA NAGA SAI	ACSC
33	221FA19062	SYED SHANIKA ZAIDA	ACSC
34	221FA19046	DEVABHAKTUNI AMAR SAI CHOWDARY	ACSC
35	201FA19019	NANDIGAM SOWMYA	ACSC
36	201FA19020	GANDI SHIVA PADMA RAJA MANIKANTA	ACSC
37	221FA19055	CHINTHA SATISH KUMAR	ACSC
38	201FA19022	GUNDUBOYINA SAGAR REDDY	ACSC
39	201FA20006	VEMULURI HEMANTH KUMAR	ACSC
40	221FA19049	GANTA SUNDEEP	ACSC
41	221FA19051	SHAIK SOHAIL AHAMMED	ACSC



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Cyber Crimes**

Date:12.09.2023

Venue: Selapadu

On September 12, 2023, the ACSE department of UEAC team organized an awareness camp to raise awareness on the problems and awareness levels related to two important issues: cybercrimes. The goal of the activity is to give a thorough overview of cybercrimes. To effectively address and overcome these challenges, it is crucial to comprehend the degree of awareness and information regarding them.

It has been organized to bring awareness about critical issues faced by today's society. The event was held in Selapadu village at 1:30 PM. A total of 41 members gets involved in the event. That includes section coordinators and two volunteers per section from the ACSE department. The event was conducted to increase concern in today's digitally driven world about how cybercrimes threaten the security and privacy of individuals and organizations.

The Program commences with Assemble every one of the NSS (Volunteers and Members) and at 1:00 PM the dividing of groups takes place according to the disciplines of the branches and each group has contributed their efforts to make people understand Cyber-crimes. By 3:30 PM, all of them came back to college, to report their respective chief organizers.

Thereby after a small interaction with the NSS core team and an appreciation for the accomplishment of the event further proceeded by taking a few photographs Finally Everyone was dispersed to their respective classes with a thank you note.



Awareness on Cyber Crimes at Selapadu on 12.09.2023

List of volunteers:

Awareness on Cyber Crimes at Selapadu on 12.09.2023			
S. No	Reg. No	Name of the Student	Branch
1	221FA19022	GADIPUDI VINEELA CHOWDARY	ACSC
2	211FA19010	PALEM ANNJANA	ACSC
3	221FA19025	YANDRAPU MAHESH	ACSC

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4	221FA19030	GEDELA SIVA NAGA SAI NITEESH BABU	ACSC
5	221FA19045	PULUGU SIRIVARSHINI	ACSC
6	221FA19063	LAVU UHA SARANYA	ACSC
7	221FA19013	POLEPALLI NARASIMHA RAO	ACSC
8	221FA20064	PATIBANDLA SAI DEEPAK	ACSC
9	221FA20014	MALINENI SRIHARI	ACSC
10	221FA20015	REDDY BHARGAV	ACSC
11	221FA20016	KOLA VARUN KUMAR REDDY	ACSC
12	221FA20017	SWARNA SRI KAVYA	ACSC
13	221FA20018	NARAYANAM LASYA	ACSC
14	201FA19033	ANAPA LIKITHA	ACSC
15	211FA19001	KOTAMRAJU UMESH CHANDRA	ACSC
16	211FA19008	SAKALA VASU VAMSI KRISHNA	ACSC
17	211FA19009	GOGADA JYOTHI SUBRAHMANYAM SAI	ACSC
18	221FA19024	GOGINENI HARI PRASAD	ACSC
19	211FA19011	KALLAM THANUJA	ACSC
20	211FA19012	KOVVURI SHANMUKHA SAI KUMAR REDDY	ACSC
21	221FA19046	DEVABHAKTUNI AMAR SAI CHOWDARY	ACSC
22	221FA19047	KAMINENI BABY TEJASWI	ACSC
23	221FA19059	YARRAM VENKATA VAMSIDHAR	ACSC
24	201FA20007	PACHIPULUSU MANASA MEGHANA	ACSC
25	201FA19032	MAKANI HITESH HARI HARANANDH	ACSC
26	221FA19052	VADDURI VENKATA GIRISH	ACSC
27	221FA19053	YADLAPALLI VISHNU VARDHAN	ACSC
28	221FA19054	ADARAPU SANDEEP	ACSC
29	201FA19020	GANDI SHIVA PADMA RAJA MANIKANTA	ACSC
30	221FA19048	KAMINENI LEELE TAPASWI	ACSC
31	221FA19060	CHIMATA OMKAR LAKSHMI	ACSC
32	221FA19061	MIRIYALA NAGA SAI	ACSC
33	221FA19062	SYED SHANIKA ZAIDA	ACSC
34	221FA19046	DEVABHAKTUNI AMAR SAI CHOWDARY	ACSC
35	201FA19019	NANDIGAM SOWMYA	ACSC
36	201FA19020	GANDI SHIVA PADMA RAJA MANIKANTA	ACSC
37	221FA19055	CHINTHA SATISH KUMAR	ACSC
38	201FA19022	GUNDUBOYINA SAGAR REDDY	ACSC
39	201FA20006	VEMULURI HEMANTH KUMAR	ACSC
40	221FA19049	GANTA SUNDEEP	ACSC
41	221FA19051	SHAIK SOHAIL AHAMMED	ACSC



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Importance of Service in Our Daily Life**

Date: 14.09.2023

Venue: U BLOCK

“Importance of service in our Daily life” was conducted to inculcate the habit of service done by students at Vignan Institute of Law on 14.09.2023 was held in U-Block at noon. A total of 40 members were involved in the event, including 1st,2nd, and 3rd year students from the Department of Law. Dr. Praveen Kumar from the Department of Law addressed the gathering. The objective of this event is to develop a sense of responsibility towards society and nurture the spirit of volunteerism.

The Program commences with the assembly of students from the Law Department at noon. Discussion of various services done by UEAC including Blood donation camps, Feeding the Hunger, book distribution and Awareness programs in villages was discussed. The speaker encouraged students to participate actively in activities.

At the end of the lecture, the chief organizer of NSS came up with the idea of giving awareness to the villagers about legal acts as a part of service. By 1:00 PM the event ended with a Thank You Note by the speaker. Finally, everyone dispersed to their classes.



Importance of Services in our Daily Life at VFSTR(U Block) on 14.09.2023

List of volunteers:

Importance of Services in our Daily Life at VFSTR(U Block) on 14.09.2023			
S. No	Reg. No	Name of the Student	Branch
1	211FA04425	D.SNEHA NAVYA SRI	LAW
2	211FA04448	G. AKHILA	LAW
3	211FA04473	V.KRISHNA LIKHITHA	LAW
4	211FA04497	A.THRIVENI	LAW
5	211FA04597	Y.SNEHA LATHA	LAW
6	211FA04600	CH.HIMAJA	LAW

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7	211FA04502	K.NIHARIKA	LAW
8	211FA04503	T.NAGA SRIDEVI	LAW
9	211FA04272	K.AKSHAY KUMAR	LAW
10	211FA04243	V.MANIKANTA	LAW
11	211FA04505	G.MADHURI	LAW
12	211FA04522	M.VENKATESH	LAW
13	211FA04390	P.YOGESHWAR	LAW
14	211FA04363	M.ROSHINI	LAW
15	211FA04394	CH.MANOJ	LAW
16	211FA04395	A.KOTI REDDY	LAW
17	211FA04396	SK.SAMIYAN	LAW
18	211FA04355	CH.VIJAY	LAW
19	211FA04371	V.MANJUNADH	LAW
20	211FA04100	S.AKANKSHA	LAW
21	211FA04508	B.SANKEERTHAN REDDY	LAW
22	211FA04425	D.SNEHA NAVYA SRI	LAW
23	211FA04448	G.AKHILA	LAW
24	211FA04473	V.KRISHNA LIKHITHA	LAW
25	211FA04497	A. THRIVENI	LAW
26	211FA04597	Y.SNEHA LATHA	LAW
27	211FA04600	CH.HIMAJA	LAW
28	211FA04502	K.NIHARIKA	LAW
29	211FA04503	T.NAGA SRIDEVI	LAW
30	211FA04272	K.AKSHAY KUMAR	LAW
31	211FA04243	V.MANIKANTA	LAW
32	211FA04505	G.MADHURI	LAW
33	211FA04522	M.VENKATESH	LAW
34	211FA04390	P.YOGESHWAR	LAW
35	211FA04363	M.ROSHINI	LAW
36	211FA04394	CH.MANOJ	LAW
37	211FA04395	A.KOTI REDDY	LAW
38	211FA04396	SK.SAMIYAN	LAW
39	211FA04355	CH.VIJAY	LAW
40	211FA04371	V.MANJUNADH	LAW



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Engineers Day**

Date: 15.09.2023

Venue: VFSTR

“Engineers Day” was celebrated on 15th September every year. On behalf of this day, the students at Vignan University conducted “Technical Project Expo and Poster Presentations”.

The students of ZPH School to enhance their understanding of Engineering and to raise awareness among ZPH school students in the field of engineering. Our university has adopted government schools from nearby villages Jagarlamudi, Vejandla, Angalakudhuru and Narakoduru. Our UEAC team members including vertical members, leads and the core team went to bring the students from their school. The program started at 8:30 AM on the premises, went to respective schools to bring the students to the University and explained to them about all the projects done by the students of VFSTR.

A total of 144 volunteers participated in the event and 320 students attended this Technical Project Expo event from the surrounding ZPH schools. Refreshments like snacks and drinks was distributed (biscuits and mango drink bottles) to the students. This enhances the skills of the students, makes them interested in the field of engineering, and develops their skills and ideas. The students have express their feelings very happily and enthusiastically. Finally, the event came to an end by sending back to the students at 12:30 PM.



Technical Project Expo event from surrounding ZPH schools

List of volunteers:

ENGINEERS DAY on 15.09.2023			
S. No	Reg. No	Name of the Student	Branch
1	231FC01030	MAGULURI VEERANJANEYULU	MBA
2	231FA04E17	GANDHAM PRASANNA LAKSHMI	CSE

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3	211FA04545	DAVULURI VENKAT CHOWDARY	CSE
4	211FA05133	VANKAYALAPATI DIMBINI NAGA LAKSHMI	ECE
5	231FD01047	PITTI DURGA PRASAD	MCA
6	231FA18176	PADYALA BALAGANGADHAR	AIANDML
7	231FA04743	DASAM LOHITHA	CSE
8	221FA01160	GOTTIMUKKALA SITA REDDY	BIOTECH
9	221FA04120	ADARSH KUMAR JHA	CSE
10	211FA18033	SARIKONDA.BHARGAV RAMA RAJU	AIANDML
11	211FA01047	KOTUPALLI PRASASTHI	BIOTECH
12	231FA04A10	EDE PANINI RAGHU PATANJALI	CSE
13	231FA04869	KANDIMALLA JAHNAVI	CSE
14	221FA14112	SHAIK FIEZA AMREEN	BI
15	201FA01040	GOWRA PRATHYUSHA	BIOTECH
16	221FA18051	VEEDULA RISHITHA	AIANDML
17	211FA04522	MANNEPATI VENKATESH	CSE
18	231FA18421	KUPPAM VENKATA LEELA MADHURI	AIANDML
19	231FA04E93	PAGADALA VEDA VARSHINI	CSE
20	211FA07143	VENKATA GIRISH NANDAN JAKKA	IT
21	231FA04710	TALUPULA SUBASHINI	CSE
22	231FA04E92	CHIRALA YESWANTH REDDY	CSE
23	201FA01043	KOGANTI NAGA CHAITANYA	BIOTECH
24	221FM01008	UMMANENI SIVA PRASAD	BSC
25	231FA04094	CHALLAPALLI GOWTHAM	CSE
26	231FA04117	PAINENI AKASH	CSE
27	231FA19025	K TULASI	CSECS
28	231FA18445	PEDDAPUDI SURENDRA REDDY	AIANDML
29	221LA06023	RAMIREDDY RITESH KUMAR	EEE
30	211FA05118	KATA SRI SAI MANOJ VENKATA REDDY	ECE
31	211FA04197	MACHAVARAPU SAI SRAVYA SRI	CSE
32	231FA23095	SRUNGARAPU MOHAN VENKATA GOPI SIDHARDHA	DS
33	201FA04280	JERRIPOTHULA YOGYATHA SREE	CSE
34	221FA07067	KOLLI AARATHI	IT
35	221FA04032	PALADUGU SIVA SATYANARAYANA	CSE
36	231FA04517	KASUKURTHI RISHITHA	CSE
37	231FA03001	JALALELDEEN MOHAMED ADAM MODARDUM	CIVIL
38	231FA05202	KORNE GANESH	ECE
39	221FA04639	YEKKANTI LAKSHMI	CSE

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40	201FA14024	BHAVANAM DIVYA SAISRI	BI
41	221FK01065	RAJANALA SOWJANYA	BBA
42	211FK01036	KALIKIRI KISHAN REDDY	BBA
43	221FA01095	VELDURTHI MOKSHA MADHUMINA	BIOTECH
44	221FA07016	THOTA SRAVAN KUMAR	IT
45	221FA04031	NAGULAPATI PHANINDRA RAJAMITHRA	CSE
46	231FA04130	KASIBHOTLA LAKSHMI RAJESWARI SAILAJA	CSE
47	211FA07052	SHAIK NAGULMEERA	IT
48	231FA03015	MABIKA AUSTIN T	CIVIL
49	231FA04B70	GANAPA RAKESH REDDY	CSE
50	201FA15007	SAI GANESH UPPUTURI	FT
51	231FA23024	P VENKATA JAYA MANIKANTA	DS
52	221FA05209	L S B ADITHYA ABBARAJU	ECE
53	211FK01149	PINJARI SAMEERA	BBA
54	231FA18454	KONDAVEETI VISHWANATH SAI PHANI	AIANDML
55	201FA04370	ELCHURI MAHESH BABU	CSE
56	221FA23033	GOLLAPUDI REVATHI	DS
57	221FC01032	THUPURI LAKSHMI KANTH	MBA
58	211FA01092	PINNI SARATH VENKATESH	BIOTECH
59	211FA01120	BUDATI BHAGYA SRI	BIOTECH
60	221FA04628	ALLAPARTHI REVANTH	CSE
61	231LA19002	SHAIK MOSEN AHAMAD	CSECS
62	231FA04785	MANUKONDA CHANDRA SEKHAR REDDY	CSE
63	231FA04632	RAVIPATI HANEESH MADHUR	CSE
64	231FA04F01	KONDAMADUGULA CHETAN REDDY	CSE
65	221FA01054	MANDRU TEJA SRI	BIOTECH
66	231FA01128	MEKALA KEERTHIKA	BIOTECH
67	221FA04217	KAKANI TEJA SREE	CSE
68	231FA01027	BURRI SAI MAHITHA	BIOTECH
69	231FA04G91	VULTA LAKSHMINARAYANA	CSE
70	231FA18221	MODUKURU MANOJ KUMAR	AIANDML
71	211FA03006	DASARI SAI VISHNU BABU	CIVIL
72	231FA21009	SHAIK SUBHANI SOHAIL	RA
73	221FA14008	NALLAMOTHU SRIVALLI	BI
74	231FA05024	BHUMIREDDY VYSHNAVI	ECE
75	231FA04D32	DEMULA JAYASREE	CSE
76	231FA04495	CHILUKURI UJWALA SRINIVAS	CSE
77	221FA06024	MOHAMMAD MAHABUBE SUNAYN	EEE
78	201FA14039	KONDA MEENAKSHI RISHITHA	BI
79	231FA18462	PERUMALLA YOGI VENKATASAI LAKSHMI HARSHITHA	AIANDML
80	211FA04648	SOURAV KUMAR	CSE
81	231FC01027	ANNEM HARSHINI	MBA

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82	211FA04405	GUNTUPALLI LOKESH CHANDRA	CSE
83	231FA16019	ANNAPUREDDY RAJITHA	BM
84	231FD01023	KANDUKURI SUSHMA	MCA
85	231FA04E33	SHAIK FARHATH AISHA	CSE
86	231FA04634	LINGAMANENI S SS VIJAYENDRA CHOWDARY	CSE
87	211FA19038	TAMMINENI LAKSHMI NARASIMHA	CSECS
88	211FA01066	JALAPATI ABHIGNA LAKSHMI PRIYA	BIOTECH
89	231FA18338	NAGALINGAM DURGA PRASAD	AIANDML
90	211FM01014	KANCHI BHARGAVI	BSC
91	231FC01151	DAGGUPATI AYYAPPA	MBA
92	231FA01107	NARRA DEEPIKA	BIOTECH
93	211FJ01010	BALARAM GOPI YALAVARTHI	BCA
94	221LA08026	THAMANAM PRADEEP BABU	MECH
95	231LA08016	SHIMANTA KASHYAP BORAH	MECH
96	221FA18015	GUNTUR KAVYA	AIANDML
97	221FA07125	VELUVOLU JITENDRA NADH CHOWDARY	IT
98	201FA04107	MAKKENA HARSHITHA	CSE
99	231FJ01011	SHAIK JIYAUDDIN	BCA
100	211FA05188	MADALA VENKATA KAVYA SRI	ECE
101	231FA16050	YANDURI LAKSHMI KESAVA RUPESH	BM
102	201FA05090	YARRAMANAYUNI DILEEP	ECE
103	231FM01005	CHIGURUPATI SNEHA SREE	BSC
104	231FA05240	GUDA NAGA SAI ASHOK	ECE
105	231FM01018	SHAIK KHAJA MOHIDDIN	BSC
106	221FA01006	BHUKKE VIDHYA VARSHINI	BIOTECH
107	231FA04003	SHAIK MUTAHHAR	CSE
102	231FA05276	ANNAM BHAVISHYA PRIYA	ECE
103	221FA01084	RAVIPATI SAI VYSHNAVI	BIOTECH
104	231FA04D87	ANGALAKUDURU NAVYA MANI SRI	CSE
105	231FA18392	SOMAVARAPU NAGARJUNA	AIANDML
106	211FW01080	MUCHU JAYANTHI	BSC HONS
107	231FA05203	KESABOYINA CHANDRA SURESH PAVAN KUMAR	ECE
108	221FA14002	MUTHOJU SRIRAM	BI
109	231FC01060	OGGU SOWMYA VENKATA SOWJANYA LAKSHMI	MBA
110	231FD01028	KONDURI SRINIVASARAO	MCA
111	221FA04610	ALLA DEEPTHI	CSE
112	221FA18110	ANDALURI HEMA VENKATA NAGESWARI	AIANDML
113	211FA18021	MUDDA KAPIL RAJ	AIANDML
114	201FA05033	SAKIRI MOHAN CHANDRA BALA NAIDU	ECE

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115	221FA18118	MUKESH LAKSHMI SAI MEDIKONDA	AIANDML
116	231FA05137	AKKAPEDDI SRI NIVEDITHA	ECE
117	211FA05138	DADI VARDHAN	ECE
118	231FA18252	VARIKUTI DHARANEESWAR	AIANDML
119	221FA07106	VULLAMGUNTA LOKESH KUMAR	IT
120	211FA19057	YEPURI MANIKANTA	CSECS
121	201FA06005	AHMED NADIR ABDELMAGID MOHAMED	EEE
122	201FA06007	ADDEPALLI VASAVI KALYANI	EEE
123	201FA06008	BANTY KUMAR PRASAD	EEE
124	201FA07001	ALLA SRINADH MANI KUMAR REDDY	IT
125	201FA07003	GUDIPATI RISHI KESAVA	IT
126	201FA07004	JALADI DEEPAKSAI	IT
127	201FA07005	NAGA SAI SIDDARDH RAVULAPALLI	IT
128	201FA07006	SHAIK MOHAMAD AMEED	IT
129	201FA07007	SYKAM SAI MANOJ	IT
130	201FA07008	KONGARA YUGANDHAR CHOWDHARY	IT
131	201FA07009	RAVELLA BHAVANA	IT
132	201FA04152	JIDUGU GOWRI SANKARA NAGA RAJA SAI KUMAR	CSE
133	201FA04154	KALEPALLI SRAVYA BHAGYA LAKSHMI	CSE
134	201FA04156	KUNAPANENI SAHITHI	CSE
135	201FA04157	LAKSHMI SAHITHI LIKHYA P	CSE
136	201FA04159	ADITYARAM MADDINENI	CSE
137	201FA04160	MADDIREDDY VENKATA SESA SAI SRIJA	CSE
138	201FA04162	MUVVA VIDYA	CSE
139	201FA04163	NERELLA SUKESH	CSE
140	201FA04164	PATIBANDLA PRAVALLIKA	CSE
141	201FA04166	REDDY. BHAVANA	CSE
142	201FA04169	THAMMA SRI POOJITHA	CSE
143	201FA04170	TIRUMALASETTY PAVAN KUMAR	CSE
144	201FA04171	TUBATI TEJ PAVAN	CSE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Health and Hygiene Awareness**

Date: 16.09.2023

Venue: Sekuru

The Health and Hygiene awareness program was conducted in Sekuru village on 16-Sep by CSE department of team UEAC. It was organized to educate and promote awareness about critical aspects of health and hygiene within the local community.

The program emphasized the significance of maintaining a healthy weight through balanced nutrition and regular exercise. Participants were educated about the causes, risk factors, and management of hypertension. The core team discussed prevention of diabetes, early detection, and the importance of routine check-ups. Participants learned about the benefits of a nutritious diet and received practical dietary recommendations. The significance of regular handwashing in preventing infections and maintaining good health was emphasized.

A cleanliness drive was conducted to encourage community members to contribute to a cleaner environment. Our UEAC team members including vertical members, leads and the core team went to Sekuru village by 10:30. They started by 10:00 AM in the college, went to the village and brought awareness in people by educating them about proper diet maintenance and other hygiene factors that leads to a healthy life. Finally, a total of 40 members returned to college by 12:30 PM. This event encourages the community to adapt to some changes to lead to a healthy life.



Health and Hygiene Awareness on 16.09.2023

List of volunteers:

Health And Hygiene Awareness on 16.09.2023			
S. No	Reg. No	Name	Branch
1	201FA04003	BASANI MANOJ REDDY	CSE
2	201FA04012	ISHA JAIN	CSE
3	201FA04022	MUMMALANENI HARSHA VARDHAN	CSE
4	201FA04095	DUDEKULA RESHMA BHANU	CSE

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5	201FA04104	M SHARATH CHANDRA REDDY	CSE
6	201FA04087	VEMULAPALLI SAI ANJANI	CSE
7	201FA04109	MANNE SUJITHA	CSE
8	211FA04246	RAMANA NAGANJANEYA BHARATH REDDY	CSE
9	211FA04239	BOGOLU SOWMYA	CSE
10	211FA04251	ARI NIKHIL SAI	CSE
11	211FA04175	UMA SANTHOSH VUYYURU	CSE
12	211FA04145	RAYAVARAPU NIHARIKA	CSE
13	211FA04152	NERELLA PUJITHA	CSE
14	211FA04160	KANUMURI DEEPIKALAKSHMI	CSE
15	211FA04216	POLINA USHA LAKSHMI	CSE
16	211FA04243	VUYYURU MANIKANTA BABU	CSE
17	211FA04247	KOLLURU CHAKRI KUMAR	CSE
18	211FA04483	DESABOYNA VENKATA SAI KALYAN	CSE
19	211FA04488	PATHAN SANA SULTANA	CSE
20	211FA04496	BYSANI CHAITANYA SAI	CSE
21	211FA04505	GANIPISETTY MADHURI	CSE
22	211FA04518	POLISETTI SRAVANTHI	CSE
23	211FA04393	DASARI NAVYA SREE	CSE
24	211FA04367	CHILAKAPATI MANVITHA	CSE
25	211FA04344	VUYYURU YASWANTHSRI	CSE
26	211FA04319	DHANASIRI KAVYA	CSE
27	221FA04073	BELLAMKONDA CHAITANYA NANDINI	CSE
28	221FA04065	KUCHIPUDI NAGA LAKSHMI HANSIKA	CSE
29	221FA04083	BOGALA DEVI PRASAAD REDDY	CSE
30	221FA04094	ALLA AMMULU	CSE
31	221FA04102	RAVIPATI SOWMYA	CSE
32	221FA04108	KAMEPALLY NIKHIL SAI	CSE
33	221FA04126	BATCHU YASASWINI SRI PAVANI	CSE
34	221FA04120	ADARSH KUMAR JHA	CSE
35	221FA04113	SIKHINAM MERCY	CSE
36	221FA04134	VALLEM KEERTHANA	CSE
37	221FA04189	SEELAM LAL SRIVAMSI	CSE
38	221FA04201	SURA JAHNAVI	CSE
39	221FA04211	ALAPATI NIKITHA	CSE
40	221FA04196	ARE VIJAY KRISHNA	CSE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Importance of 3r's Principle**

Date:20.09.2023

Venue: ZP High School Vejudla

On the 20th of September 2023, the importance of 3r's principle was organized by the CHEMICAL AND TEXTILE departments of the NSS-UEAC wing in the nearby Vejudla village.

This event aimed to create awareness about what is 3r's principle and the importance of that and when we follow the 3r's principles what are the benefits to society, was briefly explained. This event began at 2:15 PM with a brief introduction about the NSS program and the significance of the event, with a total of 40 NSS coordinators and volunteers. The NSS unit has reached approximately 250 students from classes 6th to 9th in Vejudla ZPHS HIGH SCHOOL.

After the introduction, the actual topic discussion began on the importance of 3r's principle. The attendees were provided with good information about this event by explaining the overall REDUCE, REUSE, RECYCLE. And we get a good response from students about this topic.

In Conclusion, the importance of 3r's principles event organized by team NSS of the TEXTILE & CHEMICAL department of Vignan University was held successfully and ended with a good response.



Awareness on Importance of 3R's Principle in ZPHS Vejudla on 20.09.2023

List of Volunteers:

Awareness on importance of 3r's principle on 20.09.2023			
S. No	Registration Number	Name	Year
1	211FA04425	D.SNEHA NAVYA SRI	CHEM
2	211FA04448	G. AKHILA	CHEM
3	211FA04473	V.KRISHNA LIKHITHA	CHEM
4	211FA04497	A.THRIVENI	CHEM
5	211FA04597	Y.SNEHA LATHA	CHEM

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6	211FA04600	CH.HIMAJA	CHEM
7	211FA04502	K.NIHARIKA	CHEM
8	211FA04503	T.NAGA SRIDEVI	CHEM
9	211FA04272	K.AKSHAY KUMAR	CHEM
10	211FA04243	V.MANIKANTA	CHEM
11	211FA04505	G.MADHURI	CHEM
12	211FA04522	M.VENKATESH	CHEM
13	211FA04390	P.YOGESHWAR	CHEM
14	211FA04363	M.ROSHINI	CHEM
15	211FA04394	CH.MANOJ	CHEM
16	211FA04395	A.KOTI REDDY	CHEM
17	211FA04396	SK.SAMIYAN	CHEM
18	211FA04355	CH.VIJAY	CHEM
19	211FA04371	V.MANJUNADH	CHEM
20	211FA04100	S.AKANKSHA	TEXTILE
21	211FA04508	B.SANKEERTHAN REDDY	TEXTILE
22	211FA04425	D.SNEHA NAVYA SRI	TEXTILE
23	211FA04448	G.AKHILA	TEXTILE
24	211FA04473	V.KRISHNA LIKHITHA	TEXTILE
25	211FA04497	A. THRIVENI	TEXTILE
26	211FA04597	Y.SNEHA LATHA	TEXTILE
27	211FA04600	CH.HIMAJA	TEXTILE
28	211FA04502	K.NIHARIKA	TEXTILE
29	211FA04503	T.NAGA SRIDEVI	TEXTILE
30	211FA04272	K.AKSHAY KUMAR	TEXTILE
31	211FA04243	V.MANIKANTA	TEXTILE
32	211FA04505	G.MADHURI	TEXTILE
33	211FA04522	M.VENKATESH	TEXTILE
34	211FA04390	P.YOGESHWAR	TEXTILE
35	211FA04363	M.ROSHINI	TEXTILE
36	211FA04394	CH.MANOJ	TEXTILE
37	211FA04395	A.KOTI REDDY	TEXTILE
38	211FA04396	SK.SAMIYAN	TEXTILE
39	211FA04355	CH.VIJAY	TEXTILE
40	211FA04371	V.MANJUNADH	TEXTILE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
FEED THE HUNGER**

Date:22.09.2023

Venue: Naidupet, Guntur

Vignan University's UEAC Team has conducted the Feed the Hunger event in a slum area at Naidupet in Guntur rural. A team of volunteers visited and observed the conditions of the people who were living near the dump yard area and came up with the idea of food distribution. It was conducted on 22-09-2023 on the NSS day celebration by the team University Extension Activities Council.

In a world of abundant wealth and resources, where enough food is produced to feed everyone on the planet, it is unacceptable that hundreds of millions of people suffer from hunger. Feeding the hungry and giving food to the needy is one of the simplest ways of helping them to sleep without an empty stomach.

Our UEAC team of 67 volunteers, including core, leads, and vertical members went to a slum area and distributed around 250 food packets to the people. Finally, we returned to college by 8:00 PM. UEAC Program Officer Dr. Vijayababu Palukuri motivated the volunteers and UEAC coordinator Mr. D.SureshBabu coordinated the entire camp. Dr. Vijayababu Palukuri and Dr. M.S.S. Rukmini Dean of Student Affairs appreciated every volunteer.



Feed The Hunger On 22.09.2023

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Annual Report – 2023-24****List of Volunteers:**

Feed The Hunger On 22.09.2023			
S. No	Reg. No	Name Of The Student	Branch
1	231FA04A48	CHANDU VENKATA SAI NAGARJUNA	CSE
2	231FA04G05	AYUSH KUMAR	CSE
3	231FA04A70	PILLUTLA SRIYA LALITHA	CSE
4	221FK01011	BHIMA SHANMUKHA	BBA
5	221FA04481	MARTHA SIVA SAI GEETHESHW	CSE
6	221FA04351	PONNEGANTI HARSHITH KUMAR	CSE
7	201FA15069	MADARGARI YUNUS	FT
8	211FA05139	S. SOWMYA SRI	ECE
9	201FA04393	ADUSUMALLI THARUN NAIDU	CSE
10	211FA05238	UVLLAM RAMESH BABU	ECE
11	221FA04036	TATINI RAGHU RAM	CSE
12	201FA15050	DOKUPARTHI BHUVANESWARI	FT
13	221FA08004	EZELDIN ESHAG EISA MOHAMED	MECH
14	231LA06008	CHILAKA RAVI KUMAR	EEE
15	201FA04162	MUVVA VIDYA	CSE
16	231FA04753	LAKKA BHAVYA TEERDHA	CSE
17	201FA15002	CHIKKU VENU	FT
18	221FC01054	CHENNAMALLU CHANDRA SEKHAR PAVAN KUMAR	MBA
19	211FW01047	NADIPALLI KARTHIK	BSC HONS
20	231FA18359	ANKISETTY SAI HARSHINI	AIANDML
21	231FA23017	INTURI HARI SAI TEJA	DS
22	211FA04676	SAFUWAN SHIBLEE	CSE
23	231FA14047	CHILAKABATHINI SRAVYA KEERTHANA	BI
24	231FA14012	VAZRALA PUSHPA VALLIKA	BI
25	221FA18153	DHULIPALLA SAI CHAITANYA	AIANDML
26	221FW01087	BELLAMKONDA DHANA LAKSHMI	BSC HONS
27	231FA01096	PODILI MOHANA KALYANI	BIOTECH
28	231FA04A23	SIGILSETTY DEVILEELA	CSE
29	231FA01124	LAKSHMI SOWMYA .SINGAMSETTI	BIOTECH
30	231FA04F11	UPPALA DINESH SAI KUMAR	CSE
31	231FA14069	KARANAM AKSHAYA MOUNIKA	BI
32	211FA05126	TEJA BHARGAVI BOMMU	ECE
33	201FA04320	MYNAM SAHITHI	CSE

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34	211FW01045	GRANDHI VENKATA ANU SARAYU	BSC HONS
35	221FW01088	G YAMA JAYANTHI	BSC HONS
36	201FA15084	MANUKONDA BHAVYA SRI	FT
37	231FA04A88	ATUKURI HARIKA	CSE
38	211FA04003	THOTAKURA SHANMUKHA SUDHA KIRAN	CSE
39	221FA04166	CHANIKYA ANNAPANENI	CSE
40	221FA18104	MEESALA JAHNAVI DURGA	AIANDML
41	231FA05201	ANNAPUREDDY MEENAKSHI DEVI	ECE
42	221FA04457	CHAKRAVARTHI SURYADEVARA	CSE
43	231FA07059	GUDURU KEDAR	IT
44	231FA04E50	DEVALAPALLI THANUJ KRISHNA	CSE
45	221FA04734	AVINASH KUMAR	CSE
46	221FD01053	RAMADAS NANDINI SAI	MCA
47	231FA04128	S JAHNAVI	CSE
48	231FA16045	GOTTIPATI MANASWI	BM
49	221FA07076	KOTAMRAJU KAUSHIK	IT
50	231FA18039	MADALA HEMA SAI	AIANDML
51	211FA07029	SHAIK MOHAMMAD SAMIULLAH	IT
52	221FA14094	KATA KUMUDINI	BI
53	221LA06017	CHINTHABATHINI ANGELMANI	EEE
54	221FA23053	POKALA HARI PRIYA	DS
55	211FM01046	KONAKALA BHARGAV	BSC
56	201FA04154	KALEPALLI SRAVYA BHAGYA LAKSHMI	CSE
57	211FA05278	GAMPALA AJAY KUMAR	ECE
58	211FA05177	BOLLA SAI DURGA SIVA MANIKANTA	ECE
59	231FA15009	PATHAN FURQAN MOHAMMED KHAN	FT
60	211FA04228	GUNTUPALLI BHOOMIKA	CSE
61	231FA23086	CHEKURI LAKSHMI VASANTHI	DS
62	221FA05017	SHAIK AMMAN	ECE
63	231FA04C21	VEDAGIRI NIKUNJA VIHARINI	CSE
64	231FA18084	SHAIK NAFISA SAMREEN	AIANDML
65	231FA14077	NAVYA THALATHOTI	BI
66	221FA07049	THADIVAKA ROHITA MANJU SAI	IT
67	211FA19054	TAVVA VEERA VENKATA NAGA SAI KARTHIK	CSECS

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**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Seasonal Diseases**

Date: 23.09.2023

Venue: Vejandla Village

On the 23rd of September 2023, Awareness on Seasonal Diseases was organized by the NSS wing food technology of VFSTR in the nearby Vejandla village. This event aimed to create awareness on Seasonal Diseases and to provide awareness among the students, reducing the health problems caused by seasonal diseases and educating the People on the proper precautions. The target audience for this event was the in the nearby village of Vignan's University. This event began at 10:30 AM with a brief introduction about the NSS program and the significance of the event, with a total number of 30 NSS coordinators and volunteers. The NSS unit has reached a total number of 30 people from the village nearby for this event. In Conclusion, the awareness on seasonal diseases event organized by Team NSS of the FT department of Vignan University was a successful event that created awareness on the harmful effects of seasonal diseases.



Awareness on Seasonal diseases at Vejandla on 23.09.2023

List of volunteers:

Awareness on Seasonal Diseases on 23.09.2023			
S.No	Reg.No	Name	Branch
1	201FA15088	BUDIDHA GOVARDHAN	FT
2	201FA15096	BANDARU KIRAN BABU	FT
3	201FA15107	VEERAMACHANENI MAHITHA	FT
4	211FA15001	ANTO ABRAHAM	FT
5	211FA15005	ANAGANI MEGHANA	FT

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6	211FA15014	KUCHIPUDI RAMA LAKSHMI SUNANDHANA	FT
7	211FA15025	CHEETIRALA ABHIJITH	FT
8	211FA15037	MALLELA SAI SUHARIKA	FT
9	211FA15042	MD ROSHIN	FT
10	211FA15029	SUNKARA NAGA RAJU	FT
11	211FA15003	KOMMINI DEVA KEERTHANA	FT
12	211FA15048	TADI BHAVYA VAISHNAVI	FT
13	211FA15047	EADA SAI MANASWINI	FT
14	211FA15047	EADA SAI MANASWINI	FT
15	221FA15005	DUVVADA AVINASH	FT
16	221FA15007	KANISSETTY SAILAJA	FT
17	221FA15011	GRANDHE VEERA VENKATA VYSHNAVI	FT
18	221FA15014	KOMMURI KISHORE	FT
19	221FA15017	GAVALLAPALLI POOJITHA	FT
20	221FA15023	KUCHUN NAGA VENKATA LAKSHMI SHIV APARNA	FT
21	221FA15037	PRAVALLIKA SREE VAJRINI JANGAM	FT
22	221FA15035	GALI LEKHANA	FT
23	221FA15028	GANUPATI POOJITHA	FT
24	221FA15021	TELAGATHOTI GAYITRI	FT
25	221FA15025	MOHAMMED IRFAN	FT
26	221FA15036	GAURAV KUMAR SINGH	FT
27	221FA15034	SHANMUKHI SRI PRIYA NARADASU	FT
28	221FA15024	KARNAM PARNITHA	FT
29	221FA15008	KANKIPATI DHRITI	FT
30	221FA15004	CHENNAYPELEM DEEPIKA	FT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Balanced Diet**

Date: 23.09.23

Venue: Vejendla Village

On the 23rd of September 2023, Awareness on Balanced Diet was organized by the NSS wing food technology of VFSTR in the nearby veranda village.

This event aimed to create awareness on a Balanced Diet and to provide awareness among the students, reducing the health problems caused by the balanced diet and educating the People on the proper diet. The target audience for this event was the in the nearby village of Vignan's University.

This event began at 10:30 AM with a brief introduction about the NSS program and the significance of the event, with a total no of 30 NSS coordinators and volunteers. The NSS unit has reached a total of 300 people from the nearby village for this event.

After the introduction, awareness on a balanced diet. The attendees were provided with a brief about this event by explaining the harmful effects of various diseases. This was delivered by the NSS coordinators and the Volunteers. In Conclusion, the awareness on the Balanced Diet event organized by Team NSS of the FT department of Vignan University was a successful event that created awareness on the harmful effects of a balanced diet.



Awareness on Balanced Deities at Vejandla on 23.09.2023

List of Volunteers:

Awareness on Balanced Diet on 23.09.2023			
S.No	Reg.No	Name	Branch
1	201FA15088	BUDIDHA GOVARDHAN	FT

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2	201FA15096	BANDARU KIRAN BABU	FT
3	201FA15107	VEERAMACHANENI MAHITHA	FT
4	211FA15001	ANTO ABRAHAM	FT
5	211FA15005	ANAGANI MEGHANA	FT
6	211FA15014	KUCHIPUDI RAMA LAKSHMI SUNANDHANA	FT
7	211FA15025	CHEETIRALA ABHIJITH	FT
8	211FA15037	MALLELA SAI SUHARIKA	FT
9	211FA15042	MD ROSHIN	FT
10	211FA15029	SUNKARA NAGA RAJU	FT
11	211FA15003	KOMMINI DEVA KEERTHANA	FT
12	211FA15048	TADI BHAVYA VAISHNAVI	FT
13	211FA15047	EADA SAI MANASWINI	FT
14	211FA15047	EADA SAI MANASWINI	FT
15	221FA15005	DUVVADA AVINASH	FT
16	221FA15007	KANISSETTY SAILAJA	FT
17	221FA15011	GRANDHE VEERA VENKATA VYSHNAVI	FT
18	221FA15014	KOMMURI KISHORE	FT
19	221FA15017	GAVALLAPALLI POOJITHA	FT
20	221FA15023	KUCHUN NAGA VENKATA LAKSHMI SHIV APARNA	FT
21	221FA15037	PRAVALLIKA SREE VAJRINI JANGAM	FT
22	221FA15035	GALI LEKHANA	FT
23	221FA15028	GANUPATI POOJITHA	FT
24	221FA15021	TELAGATHOTI GAYITRI	FT
25	221FA15025	MOHAMMED IRFAN	FT
26	221FA15036	GAURAV KUMAR SINGH	FT
27	221FA15034	SHANMUKHI SRI PRIYA NARADASU	FT
28	221FA15024	KARNAM PARNITHA	FT
29	221FA15008	KANKIPATI DHRITI	FT
30	221FA15004	CHENNAYEPALEM DEEPIKA	FT



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University Extension Activity Council (UEAC) Annual Report – 2023-24 NATIONAL NSS DAY

Date:23.09.2023

Venue: Spoorthi Seminar Hall

September 24 has been observed as NSS Day since 1969 and is marked across the nation with great enthusiasm. The National service scheme was officially launched in India on this day. NSS aims to provide hands-on experience to young students in delivering community service. NSS Day is an opportunity to commemorate NSS Foundation and its invaluable contributions to society since its inception

NSS day celebrations were held on 23 September in our university at Spoorthy Seminar Hall. The National NSS Day was celebrated grandly. Mr. Wiggins Bakka, MDO of Alluri Seetha Ramaraju district the former faculty of Vignan University was the Chief Guest. The honourable Vice-Chancellor Prof. P. Nagabhushan, NSS Program Officer Dr. P. Vijay Babu, Joint Dean Dr. J.N. Kiran and Assoc. Dean Dr. K. Rachananjali graced the occasion and encouraged the volunteers. Certificates were distributed to the volunteers who served on the team for the academic year 2022-2023.

The event commenced at 3:00 PM, with the former and present core members sharing their experiences with the team. Later, a short skit was performed to highlight the need for Social Service and its awareness. The event then witnessed the speeches of the Vice Chancellor, UEAC Program Officer, Sports Dean, and Associate Dean of Student Affairs, who gave an inspiring talk to the audience inspiring he students to participate actively in service. The entire program was coordinated by Mr. D. Suresh Babu, UEAC Coordinator. The UEAC team members including core, leads, vertical members and volunteers gathered in Spoorthy Seminar Hall by 2:45 PM. The event started at 3:00 PM by sharing the experiences of the team. Finally, with 378 members the event wined up with the National Anthem at 5:30 PM.



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NATIONAL NSS DAY on 23.09.2023

List of Volunteers:

NATIONAL NSS DAY on 23.09.2023			
S. No	Reg. No	Name of the Student	Branch
1	221FD01010	BODDU RAJU	MCA
2	231FA04E61	MUKKARA INDU	CSE
3	231FA05243	ORUGANTI LAKSHMI RAMA	ECE
4	221FA15008	KANKIPATI DHRITI	FT
5	231FC01033	PEDDAPOLU SAI KUMAR REDDY	MBA
6	231FA04F61	NARALSETTY VENKATA HANUMATH SAI YASWANTH	CSE
7	201FA15013	KUNDETI YAMINI	FT
8	231FA01091	UPPALA MOUNIKA	BIOTECH
9	231FA07049	BHIMAVARAPU BHAVANA	IT
10	211FA04224	KAKARAPARTHI VINAY KUMAR	CSE
11	211LA05014	SHAIK ABUBAKAR SIDDIQ	ECE
12	221FA07064	MOUSTAFA YOUSIF ADAM ALHAG	IT
13	201FA01025	GUDIWADA BHUVAN KRISHNA NAYAK	BIOTECH
14	231FA04A59	MADDULA DHANUSRI	CSE
15	211LA12001	BOJJIREDDY BHARATH KUMAR REDDY	AG
16	221FA04051	ASODI SIVA DURGA BHAVANI	CSE
17	201FA15079	KOWTHARAPU VARALAKSHMI	FT
18	211FA04254	GOVAPUDI SIVA NANDINI	CSE
19	231FA19005	KANITHI TEJASRI LAKSHMI PRASANNA CHANDRIKA	CSECS
20	201FA04378	NITISH SHARMA	CSE
21	221FA04238	YUVARAJ KANAGALA	CSE
22	201FA04225	CHINTALAPATI LALITHA KAUMUDI	CSE
23	231FA05278	GUMMADI MOHITH VENKATA SAI	ECE

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24	211FA04050	KUKKAPALLI NAGA LAKSHMI ANUSHA	CSE
25	231FA05286	PATHAN AKMAL KHAN	ECE
26	221FA04153	GORLA SIVARAMA KRISHNA	CSE
27	221FA14098	KANTANA YASWANTH KUMAR	BI
28	201FA15087	GNANESWARI JANAPALA	FT
29	231FA04715	GUDIPATI TEJASWINI	CSE
30	231FA04B28	VETCHA LEELA VENKATA NAGA LITHISH	CSE
31	201FA04405	PADARTHI SUDHA RANI	CSE
32	211FK01093	SHAIK PARVEEN	BBA
33	211LA12005	G.MOUNICA	AG
34	201FA01026	AMARA PRAVEEN	BIOTECH
35	211FA04502	KATTAMURI NEEHARIKA	CSE
36	221FA07048	VALLABHANENI VUHARIKA	IT
37	201FA05092	MONU KUMAR	ECE
38	221FK01009	BANALA MYDHILI	BBA
39	201FK01021	MANCHA NITHISH KUMAR	BBA
40	231FA01024	IRRINKI LAKSHMI NAGA SITA RAMA PRASAD	BIOTECH
41	231FA07132	NELLURI NARENDRA	IT
42	231FA04D97	YARRAMASU SRI HARSHA VARDHAN	CSE
43	211LA05049	S V N CHARANAKAR YANDRAPRAGADA	ECE
44	211LA04008	VEERANKI NAGA SAI	CSE
45	211FA04622	NALIGALA AHALYA	CSE
46	231FA23026	CHALAPATI LIKHIT NARASIMHA	DS
47	221FA19007	DESAMALA RAJ ARYAN	CSECS
48	211LA05040	KOMMURI MOHITH SAI LEELA KUMAR	ECE
49	231FA04B85	GALI TIRUMALA SRI MANIKANTA	CSE
50	231FA14070	KASARANENI LAHARI	BI
51	221FA04364	DASARI NAGA CHANDU	CSE
52	211FA07129	BALUSUPATI MANI KALYAN	IT
53	231FA19069	SHAIK AADIL	CSECS
54	211FA05042	DAVULURI NAGA VENKATA RAMANA	ECE
55	231FA14090	JAKKIREDDY MEENANJALI	BI
56	231FW01046	PADMANABHUNI MANIKANTA RAVATH	BSC HONS
57	231FA18071	PARIMI TEJA SRI	AIANDML
58	211FK01098	SURAMPUDI KOWSHIK	BBA
59	211FA07126	MANDELA SAI KAMALAKAR	IT
60	211FJ01013	BOLLINENI DEEPTHI	BCA
61	201FA04381	TALARI NITEESH VARSHAN	CSE

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62	231FJ01055	MOTURI SANDEEP	BCA
63	231FA18452	BANDARU VENKATA SATYA PAVAN	AIANDML
64	201FA15053	BATTU LAVANYA SAI	FT
65	221FW01071	SHAIK SHABEERVALI	BSC HONS
66	211FJ01048	PRASADAM SAI ABHINAY	BCA
67	231FC01076	CHEDURI VENKATA SUMANTH	MBA
68	231FA05048	YADLAPALLI SAI SRI RAM	ECE
69	231FA08005	RASAMSETTY BHAVANI VENKATA PRASANNA KUMAR	MECH
70	221FA14004	SOMEPELLI BHARGAVI	BI
71	211FA05208	IMMADI RAMU	ECE
72	211FK01123	ARAVAPALLI VIJAY	BBA
73	201FA04391	YASAM BHAVANA	CSE
74	231FK01126	KHUSHI RAJ	BBA
75	221FA18086	CHAPALAMADUGU KAVYA SRI	AIANDML
76	201FA05007	CHINNAMSETTY RAVI KUMAR	ECE
77	231FA05117	NAMINENI JAYA PRAKASH	ECE
78	231FA06013	KATIKA JAHNAVI	EEE
79	231FA04E91	KUCHIPUDI HEMANTH KUMAR	CSE
80	211FJ01067	YENUMULA VINUTHNA SRI	BCA
81	221FK01103	RATHAMSHETTY BHUVANESHWAR	BBA
82	231FA04996	BONIGALA ABHISHEK	CSE
83	231FA04G32	BANGARU GNANA SRI VENKATA SAI	CSE
84	231FA18214	PULI ABHILASH	AIANDML
85	221FA04033	PIKKI KAVYANJALI	CSE
86	231FA04158	CHINTALA TANUJ KUMAR	CSE
87	231FA04286	GORANTLA SIVANAGA PALLAVI	CSE
88	201FA04116	PARDHIV SAI ALLAM	CSE
89	211FA04031	MANDURU VYSHNAVI	CSE
90	231FA18093	GANTA INDHU	AIANDML
91	201FA04212	BATCHU DURGA SAI KRISHNA	CSE
92	221FA04598	CHINTALA SAI KRISHNA	CSE
93	231FA05130	PACHAKARLA SWATHIKA	ECE
94	231FA04313	OGIREDDY SAI SREE SUPRAJITH REDDY	CSE
95	201FA15096	BANDARU KIRAN BABU	FT
96	221LA06004	SHAIK ANWAR PASHA	EEE
97	211FA19058	BOLLINENI BHUVANESH CHOWDARY	CSECS
98	211FA14065	CHANDIKA PRASUNA	BI
99	231FA04B86	MOHAMMAD KARISHMA	CSE

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100	211FW01100	ARADHYULA CHANDRIKA SRIYA	BSC HONS
101	231FA05060	GUNDBATHINI RAMYA	ECE
102	231FA04F40	KANHAIYA KUMAR	CSE
103	231FA15032	SAMBANGI ROHITH	FT
104	221FA04436	LIKHITHA GOPALAM	CSE
105	231FC01079	KANNEGANTI BHAVANA	MBA
106	221FK01085	YEKKITELA NARESH VARDHAN	BBA
107	231FA05263	PADAMATA PUJA DHARANI	ECE
108	211FA04020	NARRA CHANDANA	CSE
109	231FA04913	SAKHAMURI JAGADEESH	CSE
110	221FA23017	DONEPUDI HEMANTH	DS
111	221FA18066	CHALLA HARI JOSHICA REDDY	AIANDML
112	231FA05282	KUNISETTY ANIL KUMAR	ECE
113	221FW01168	JOLLY GRACE GIRRA	BSC HONS
114	221FA05177	UDATHA MANOJ KUMAR	ECE
115	231FA16042	T ANANTHBALAJI	BM
116	211FA01051	RANGISETTY BHASKAR RAM MOHAN RAO	BIOTECH
117	211FK01019	DIVYAKOLA PAVITHRA SRI SAI MANASA	BBA
118	221FA06025	BOLLU LOKESWARI	EEE
119	221FA05172	MULLAPUDI HEMA	ECE
120	231FC01095	KAKUMANU PUJITHA	MBA
121	231FC01015	GADDAM NAVYA	MBA
122	201FA04215	SATISH KUMAR MANNEM	CSE
123	211FA14013	KAMALNADH REDDY ARUMALLA	BI
124	211FA05207	GALLA SWATHI	ECE
125	231FA04579	PALAPATI NAGAVARDHAN REDDY	CSE
126	231FA04641	PIYUSH CHOUDHARY	CSE
127	221FA04354	GOGINENI JITHENDRA CHOWDARY	CSE
128	211FA05309	RAVI RAJ	ECE
129	201FA18032	KAKANI VAMSI	AIANDML
130	201FA12022	SHABNUM TABASSUM	AG
131	221FA04485	YENIGALLA MANOJ	CSE
132	201FA15064	LAMBU POOJA	FT
133	231FA04644	ANIL KUMAR	CSE
134	231FC01149	PONDUGULA SIVA VENKATA NARAYANA REDDY	MBA
135	231FA18414	KARYAMPUDI KHYATI SAI	AIANDML
136	221FA04242	KONDAPALLI KALYANI	CSE

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137	221FA04612	BORRU VENKAT	CSE
138	221FA05074	ADURADA VIVEK	ECE
139	211LA12015	THATIKONDA SRAVAN NAGA SAI	AG
140	221FA07066	PENTYALA SANNIHITHA CHOWDARY	IT
141	211FW01013	SAILA KAVYA SRI	BSC HONS
142	221FA07018	ADDANKI SAI TEJA	IT
143	231FA05275	NARRAVULA KAVYA	ECE
144	221FA04609	YELLELA KRISHNA VAMSI	CSE
145	231FA05171	POTU HARSHA SRI SAI	ECE
146	231FC01121	KROVVIDI ANUPAMA	MBA
147	201FA05046	CHUKKA YESWANTH VENKATA GANESH	ECE
148	221FA04339	GOLLAMUDI RADHIKA	CSE
149	231FA18046	BANDI GOPI MANIKANTA	AIANDML
150	231FA18223	GURRAM SUSHITHA	AIANDML
151	231FA18066	ARYAN KUMAR RAJ	AIANDML
152	221FA19028	JUVVA DIVYA	CSECS
153	231FA04G13	ALTHAF BAIG	CSE
154	211LA04006	DHULIPUDI BALA VENKATA NARASIMHA RAO	CSE
155	211FA05187	SHAIK SAHIL MALIK	ECE
156	221FC01073	DIRISINALA ASHOK REDDY	MBA
157	221FD01033	KANDE VENKATA SATYASAI RAGHAVENDRA MURALI	MCA
158	221FW01057	SHAIK RUKHIYA	BSC HONS
159	221FA18151	BALUSU CHATURYA	AIANDML
160	211FA04381	KATTA SUPRAJA	CSE
161	201FA07072	NALLURI ABHINAV	IT
162	211FA14050	NAIDU LIKHITHA PRIYA	BI
163	211FA04415	INDURI CHANDANA	CSE
164	211FA18046	JAGRUTHA ADITYA KODURU	AIANDML
165	211FM01039	VAKA G S V SUNDARA RAMOJI RAO	BSC
166	201FA04351	BHARATH KUMAR BODDULURI	CSE
167	231FA05287	NEELAM ADITYA	ECE
168	221FW01084	NEMALIKANTI SABITHA	BSC HONS
169	231FA04738	DAMMU YASWANTH SAI VARDHAN	CSE
170	221FW01125	MACHERLA BHAVANA	BSC HONS
171	231FA23099	THUMMEPALLI VENKATA NAGARAGHAVA AKHILKUMAR	DS
172	211LA04014	YELCHURI CHARAN GANESH	CSE

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173	231FA05095	KOLLURU VAASANTHI	ECE
174	221LA04001	ELURI SUSHMA	CSE
175	231FJ01032	SHAIK TASLEEM	BCA
176	221FW01135	LACCHI MADHAVI	BSC HONS
177	231FA14091	TANNERU RAMANA CHAITANYA	BI
178	231FA04610	MOHAMMED HASAN BAIG	CSE
179	211FA19028	MANDAVA YAGNESH	CSECS
180	231FA04109	BUCHI NEERUSH	CSE
181	231FA01119	MAKANI PRIYA VAISHNAVI	BIOTECH
182	201FA01024	UGGIRALA GANGA RAJU	BIOTECH
183	231FA18463	PULI GAJENDRA MONISH	AIANDML
184	231FA05268	PATHAN ARSHAD KHAN	ECE
185	221FA01034	NAMBULA NISHANTH	BIOTECH
186	231FK01084	R CHAITRA SAMEERA	BBA
187	201FA04417	SRAVANI GAJULA	CSE
188	231FA01033	GODDALLA DINESH NAG	BIOTECH
189	201FA04448	DAMMALAPATI AKHILA	CSE
190	221FA15028	GANUPATI POOJITHA	FT
191	201FA04283	PAILA GEETHIKA SUPRIYA	CSE
192	221FJ01016	DODDAPANENI MANOGNA SRI	BCA
193	231FA04498	MADDINENI SRI RITHIKA	CSE
194	211FA04226	VURAKARANAM NAGA VENKATA SAI SUBBARAO	CSE
195	231FA06024	CHOL RUPINY MIJAK ANGON	EEE
196	211FA16021	NELAKUDITI BHAVANI	BM
197	211FA04086	VARADA THANMAYA VENKATA SRI SAI KAVYA	CSE
198	231FA05008	KAMBHAM AKSHAYA	ECE
199	221FA06029	MUHANNAD AHMED MOHAMED IDRIS	EEE
200	231FA14060	VANAPARTHI LASYA	BI
201	231FA04341	KANDUKURI JAYA LAKSHMI	CSE
202	211FK01109	VISWANADHUNI PAVAN	BBA
203	231FA18225	PAGOLU CHAKRADHAR	AIANDML
204	231FA19047	KAPA HARMITHA LAKSHMI	CSECS
205	221FA04656	SANKABATTULA LAKSHMI PRAVALLIKA	CSE
206	211FA05091	TELAGANEEDI YUKTHA	ECE
207	231FA04A53	KARRI YUVA NAGENDRA REDDY	CSE
208	201FA02002	KANUMURI LASYA VARDHINI	CHEM
209	211FA04532	ADDAGADDA VENKATESH	CSE

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210	221FA18156	MATHI SRI PRIYA	AIANDML
211	231FA01075	YERROLLA SHALEM KRUPA SAGAR	BIOTECH
212	211FA05003	PALLAPOTHU VASAVI	ECE
213	231FA04C62	PARUPALLI SATYA DURGA JOSHNA SRI BHAVANA	CSE
214	211FA04246	RAMANA NAGANJANEYA BHARATH REDDY	CSE
215	211FA05017	SUDANAPALLI SRINIVAS	ECE
216	201FA15075	BOMMAREDDY RESHMA REDDY	FT
217	221FA04496	ANNAPUREDDY NAGI REDDY	CSE
218	211FA18137	PETETI LAVANYA	AIANDML
219	231FW01010	BUTTI HAVEELA	BSC HONS
220	231FC01104	GODAVARTHI LAKSHMI SNEHANJALI	MBA
221	231FA04222	MANUKONDA DEEPAK SAI	CSE
222	201FA18029	SAJJA RUSHVI	AIANDML
223	231LA06007	NADELLA NITHEESH CHOWDARY	EEE
224	231FA04556	MOVVA MOHAN VINAY KUMAR REDDY	CSE
225	211FA04357	THOMMANDRU NAVYA	CSE
226	221FA04638	BACHINA HARSHITHA	CSE
227	231FA04529	PODAPATI SYAM VISHNU VARDHAN	CSE
228	231FA04E75	KADALI ANUHYA	CSE
229	231FA04412	ANNAPAREDDY GNAPIKA	CSE
230	201FA15082	YARRAGOTI PRADEEP KUMAR	FT
231	211FA07108	POLISSETTY TEJASWI SARVANI	IT
232	231FW01057	SHAIK UZMA TAHSEEN	BSC HONS
233	201FA04254	SHAIK SHAMRIYAZ	CSE
234	231FA07117	KASIMKOTA HARSHA VARDHAN SAI	IT
235	201FA16004	GLADWIN TOMY	BM
236	211FA07117	VEJANDLA JAYA KRISHNA	IT
237	221FA05167	VEMIREDDY VANAJA	ECE
238	221FA18083	MAKKENA LAKSHMI DEEPIKA	AIANDML
239	221FA01079	ARJULA SRI SURYA KANTHI	BIOTECH
240	221FA04138	JANNAVARAPU VANI AKHILA	CSE
241	231FC01035	UPPUGUNDURI BHAVANI	MBA
242	231FA07087	CHEEPILLA CHARMI	IT
243	231FA05046	SHAIK JANI BASHU	ECE
244	231FK01071	LAKKIREDDY VENU VARDHAN REDDY	BBA
245	231FA18029	HAFFI SHAHED MAZID	AIANDML
246	231FA19059	SYED WAFEEQ USAID	CSECS

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247	211FK01061	NAGARAM SRI GOPAL	BBA
248	211FA04071	VADDINENI SAI PRANATHI	CSE
249	231FA02005	CHAKACHAKA ALLAN	CHEM
250	221FA04663	KOKA VENKATESH	CSE
251	221FA04308	GOGINENI DHEERAJ	CSE
252	211FJ01001	ABDALMAHMOUD ADIL ALNOOR SULIMAN	BCA
253	231FA04724	BHIMAVARAPU CHANDRA SASIDHAR REDDY	CSE
254	221FA14064	VAKALAPUDI MIDHILESH CHOWDARY	BI
255	221FA05040	PODILE SAI SUMA	ECE
256	221LA05004	VUTUKURI THEEPAN SREE HARSHA	ECE
257	221FA04567	TAVITI VIVEKA NANDINI	CSE
258	221FA04096	NADIMPALLI ABHIRAMA RAJU	CSE
259	221FA04405	ALAVALA SRAVANI	CSE
260	231FA04777	KAKARLA BALA BRAHMANANDAM	CSE
261	221FA01040	AKULA BHAVANA	BIOTECH
262	231FA04E84	KAMMA GANESH	CSE
263	231FA07026	JAKKA HARI KALYAN	IT
264	231FD01059	SHAIK MAHERA	MCA
265	211FA04654	SUMANT KUMAR YADAV	CSE
266	211FA02008	PULAKHANDAM NAGARJUNA REDDY	CHEM
267	211FA05217	GALI MANIKANTA	ECE
268	211FA05132	VENNA LAVANYA REDDY	ECE
269	231FA18409	INTURI SEESRITHA	AIANDML
270	201FA19019	NANDIGAM SOWMYA	CSECS
271	231FA04E05	VIPPARALA PAVAN KARTHIK	CSE
272	211FA04557	MANURU L S S MANOHARA CHANDRACOS	CSE
273	221FA05025	KANNEBOINA VENU	ECE
274	231FA04B56	PAGADAM KESAVA REDDY	CSE
275	211FA04528	HEMANTH BETHA	CSE
276	201FA04317	RAMINENI SAI KAMAL	CSE
277	211FA16004	PANCHAYATULA POORNA NIKHILA	BM
278	231FA07111	NIDAMANURU VISHNU VARDHAN DHANARAM	IT
279	221LA08019	SHAIK RASHEED	MECH
280	231LA08007	PASAM PRAVEEN KUMAR	MECH
281	211FA07058	TADIKONDA HEMANTH VENKATA NAG	IT

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282	231FA04120	MOTAPOTHULA PADMA HARSINI	CSE
283	221FA03008	NISHCHAL KAFLE	CIVIL
284	231FA05220	SEGU N V A D B S SUKUMAR	ECE
285	221FA18112	KOLLI SABHAMINI	AIANDML
286	211FK01124	SHIKHA	BBA
287	231FA08003	MUSTAFA MOHAMEDZAIN IBRAHIM AHMED	MECH
288	201FA04142	CHAGANTI SAI SUSHMINI	CSE
289	231FA04E32	KOLLI SUSHMA	CSE
290	211FA05221	SHAIK MUSKAAN	ECE
291	211FA14043	GUTTI SRI PRAGNA	BI
292	201FA16009	MALAPATI LOSHALIKA REDDY	BM
293	231FA19073	TUMATI NARASIMHA	CSECS
294	231FJ01059	BETHALA VINAY	BCA
295	231FA04B15	TAMMISSETTY SIVA PRASAD	CSE
296	231FK01088	PAKELA HARI KRISHNA	BBA
297	211FA18113	VELIVELA PARDHA SARADHI	AIANDML
298	231FA23087	RAVI SASANK	DS
299	231FA04A04	NALLAMOPU VENKATA KARTHEEK	CSE
300	231FA05124	LOKAM JAHNAVI	ECE
301	211FA04568	SANTOSH KUMAR	CSE
302	211FA15001	ANTO ABRAHAM	FT
303	231FA04627	YARRABOTHU SESA SAI	CSE
304	231FW01021	GUTTULA BINDU MADHAVI	BSC HONS
305	221FC01068	BHUPANI KARTHIK	MBA
306	231FA04C02	MOGAL YASIN BAIG	CSE
307	231FC01133	SHAIK YOUNUS	MBA
308	211FA05237	ILLURI THANUSH REDDY	ECE
309	221FA18039	NELLURI VISHNU SAI PRIYA	AIANDML
310	221FC01129	MODUKURI MURALI	MBA
311	231FA03005	CHIMKA SRAVANA SANDHYA	CIVIL
312	231FA14036	SHAIK AZEEZ	BI
313	231FA15024	GUDURI MIRINDA RAJ	FT
314	201FA07052	ANUVALASETTY NAGA HARSHITH VARDHAN	IT
315	231FA23074	MALLELA GOPI CHANDH	DS
316	221FA14046	NAMEPALLI LALASA	BI
317	211FA19040	KAMISSETTI CHANDRA SEKHAR	CSECS
318	221FJ01062	SARAMALLA MANIKANTA	BCA

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319	201FA05103	KELLA TRINATH	ECE
320	231FA01153	SAI TANMAYI KEERTHI VUMMITI	BIOTECH
321	231FA18350	MADDALI UMA MAHESWARA RAO	AIANDML
322	231FA18391	REDDY CHIRU HASINI	AIANDML
323	231FA18385	SHAIK RAHAMTHULLA KOMIL	AIANDML
324	231FA04440	KANTU THIRUMALA RAO	CSE
325	211FA18079	GENIPISETTY SAI CHAND	AIANDML
326	211LA05021	GUNTUPALLI BALAJI	ECE
327	231FA04555	ATLURI SRI CHARAN	CSE
328	231FA04618	MADA VEERA MANI VARDHAN	CSE
329	211FA01108	GUDARU SAILAJA	BIOTECH
330	201FA15008	SHAIK SABIYA	FT
331	231FA04727	NAKKA RUDHRA	CSE
332	221FA04326	BANDARU SRINADH	CSE
333	231FA04262	PUNUGUPATI SARADA GAYATHRI	CSE
334	211FA18108	MATURI BHAVYA SRI	AIANDML
335	221FA04330	VAJJA LAKSHMI SRAVYA	CSE
336	211FK01077	RAVI TEJA KONDETI	BBA
337	211FA08024	JONNAKUTI BHARATH TEJA	MECH
338	201FA03005	PANDRANGI SASANK SAI KUMAR	CIVIL
339	211FA04255	PITTA ANDREW BLAZE	CSE
340	221FA19060	CHIMATA OMKAR LAKSHMI	CSECS
341	211FA05015	MONALISA PANCHAKARLA	ECE
342	221FA04048	THAMMINENI MOKSHAGNA SAI	CSE
343	221FC01034	ABDUL SAKEENA BANU	MBA
344	231FA05069	SAYANA LOHITH	ECE
345	231FA20005	VANGA BHUVANA CHANDRA	CSBS
346	201FA18026	ANNAM SAI TEJA	AIANDML
347	221FA21009	CHEBROLU JYOTHIKA	RA
348	201FA07003	GUDIPATI RISHI KESAVA	IT
349	231FA16025	KATARU SAI CHANDANA	BM
350	211FA04672	SHIVAM KUMAR	CSE
351	231FA07128	VASIREDDY ANANYA CHOWDARY	IT
352	231FA04D44	K DIVYA	CSE
353	201FA14009	GEETHIKA GAYATRI PADALA	BI
354	231FA01129	AMAN RAJ	BIOTECH
355	221FA20010	GADE LOKESH	CSBS
356	231FA01018	DEVIREDDY GNANA MAHITHA	BIOTECH
357	211FW01037	PRATHIPATI LAVANYA	BSC HONS

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358	231FA23104	KORIPURI POORNA VENKATA SAI PRIYA	DS
359	201FA05032	ROMPICHARLA NAGA MANJEERA	ECE
360	231LA06001	GOLLA SAMBASIVA RAO	EEE
361	231FA04809	GOLAKOTI MEHER BHARADWAJ	CSE
362	231FA04A64	MUDDAMSETTY TEJASWINI	CSE
363	231FA05166	POTU PRASAD	ECE
364	231FA04356	KALVA SIDHARTHA	CSE
365	211FA01063	SIMHAMBHATLA V NAGA HARITHA KAMESWARI	BIOTECH
366	211FA16001	GUDURU POOJITHA	BM
367	231FA04D80	BOREDDY DEEPIKA REDDY	CSE
368	221FA14120	ADAPA VIDHYA	BI
369	211FA04628	RAYI HARIKA	CSE
370	211FA07050	BEERAM SREE RAMA CHANDRA	IT
371	211FA05103	AKURATI BINDU HARI CHANDANA	ECE
372	211FA04199	A.MAANAS SAI SURYA CHANDRA	CSE
373	221FC01003	DAMARLA NAGA PURNESH	MBA
374	211FA04482	ADDANKI HEMASRI	CSE
375	231FA04E94	MARIKANTI RAVITEJA	CSE
376	231FA04917	RAVADA NAGARAJU	CSE
377	211FA15021	YASHWANTH NAIDU VELIVALA	FT
378	231FA04681	GANDI VARSHINI	CSE



**University Extension Activity Council (UEAC)
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Health Camp**

Date: 24.09.2023

Venue: Vadlamudi

On National NSS Day, the University Extension Activity Council (UEAC) of VFSTR organized a Free Health Check-up Camp at one of our adopted Villages, Vadlamudi. In collaboration with Needs Blood Bank, Dr. Shiva Ratnakar General Medicine, from Amaravati Hospital Guntur and two supporting staff, have conducted the checkups to the villagers and distributed the medicine freely. Two ANMs of Vignan University Health Center were also involved in the camp for supporting the check-ups at Vadlamudi village on 24.09.2023 from 9:00 AM to 2:00 PM. The Sarpanch of the village Ms. Morampudi Anitha Rani and UEAC coordinator inaugurated the camp.

65 Student volunteers were divided into seven groups to usher the village people. They also motivated the people to utilize this opportunity. In this camp BP and body temperature, pulse checks to identify the problems of the patient and given the medicine. A total of 153 people has been examined and given free medicine. UEAC Program Officer Dr. Vijayababu Palukuri motivated the volunteers and UEAC coordinator Mr. Suresh Babu coordinates the entire camp. Dr. Vijayababu Palukuri and Dr.M.S.S. Rukmini Dean of Student Affairs appreciated every volunteer.



Free Health Camp on 24.09.2023

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NAAC
GRADE
A+NIRF
75th
BANK

**University Extension Activity Council (UEAC)
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List of Volunteers:

Health Camp on 24.09.2023 at Vadlamudi village			
S. No	Reg. No	Name of the Student	Branch
1	221FW01154	THUMATHI ARUN KUMAR	BSC HONS
2	201FA01037	RASINENI KUSUMASREE	BIOTECH
3	231FA16031	VOORA SRIVANI	BM
4	221FA04009	SRIGAKOLAPU SAI BHARATH	CSE
5	221FA04404	DHADI RAVALI	CSE
6	211FA04443	KETHA KAVYA	CSE
7	211FA15029	SUNKARA NAGA RAJU	FT
8	231FA05309	AMAN GUPTA	ECE
9	211FK01017	DALAVAI KEERTHI	BBA
10	231FW01020	GOPISETTY VASAVI	BSC HONS
11	231FA14042	PALLA YUGENDRA AMAR BALAJI	BI
12	231FK01004	GUNJI GANGADHAR	BBA
13	231FK01026	BOMMINI YUVANAGA SAI	BBA
14	221FA04746	DINESH GUPTA	CSE
15	231FA04865	PUNUGULA HARI SIVA SAI MANIKANTA	CSE
16	221FA05200	JAMPANA ANIRUDH	ECE
17	201FA04284	KARI KAVYA SREE CHOWDARY	CSE
18	211LA06016	PATHAN AFRIN SULTHANA	EEE
19	221LA12005	LAKKA HARI PRASAD	AG
20	211FA04444	KOTLA PUJITHA	CSE
21	231FA19086	BEJAWADA HARIKA	CSECS
22	231FA04937	DODDA KAVYA SUCHARITHA	CSE
23	231FA18138	ARAVA PRIYA DARSINI	AIANDML
24	211FK01088	SHAIK FAIZULLA	BBA
25	231FA14046	VELPULA PRASANNA KUMAR	BI
26	221FA07050	MANUKONDA HARSHITHA	IT
27	211FW01041	THINNELAPUDI HARIKA	BSC HONS
28	221FW01060	MEKA NAVYA	BSC HONS
29	231FA04185	KOSANAM HEMA	CSE
30	211FK01040	KINTALI SAKETH	BBA
31	231FA04B51	DUDDU KULA VIKRAM	CSE
32	231FA04G79	DALVEER SINGH	CSE
33	221FA04564	KAKUMANU NITHIN CHANDRA	CSE
34	231FA18165	SIGIRISETTY LEELA VENKATA SASANK	AIANDML
35	221FA05125	DUGGA LAKSHMIKANTH REDDY	ECE
36	211FA04130	NALLABOTHU PRAVALLIKA	CSE
37	231FJ01025	SUMANT KUMAR GOND	BCA
38	211FA16012	ALAN TOMY	BM

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39	221FK01049	MOHAMMAD FARJANA	BBA
40	231FA04D58	AKKINENI MEGHANA	CSE
41	231FW01076	SOWJANYA PENUMUDI	BSC HONS
42	221FA05014	MOHAMMAD HAMZA	ECE
43	211FA05201	KODURU SWATHI SREE	ECE
44	231FA07053	DESU VENKATA VYSHNAVI	IT
45	231FA04B94	JAVVAJI SAI KUMAR	CSE
46	221LA02005	JALASUTHRAM SHYAM SUNDAR KALI VARA PRASAD	CHEM
47	201FA04061	MANNAVA AKSHAY VARMA	CSE
48	221FA01199	KUMBHA NAGA PRAVEEN	BIOTECH
49	231FA01161	NALLAMOTHU HARIKA	BIOTECH
50	231FW01052	SANKARAPU THANUJA	BSC HONS
51	221FA05106	VELAMA RAJA	ECE
52	221FA14015	BEERAM ALEKHYA	BI
53	231FA04C47	DUNNA BHARATH KUMAR	CSE
54	231FW01051	ROUTHU VEERA SAMEER KUMAR	BSC HONS
55	231FA04E83	GALLA APOORVA	CSE
56	231FA18331	MANEPALLI AMULYA	AIANDML
57	231FA18348	GANIVADA VENKATA SASHANK	AIANDML
58	231FD01046	PENUMUDI TEJA SAI	MCA
59	201FA01009	TADIMETI. V. L. K. V. SAI SARANYA	BIOTECH
60	231FA04990	IMMADI BHARGAVI	CSE
61	231FA15031	MAMIDI MANASA NAGA SAI	FT
62	231FA04068	NIPPULETI.B.N.V.S SAI AKHIL	CSE
63	211FA04561	AMBATI NAGA NAVEEN CHOWDARY	CSE
64	201FA04458	VINNAKOTA LOKESH	CSE
65	231LA06015	CHAVVAKULA NAVEENKUMAR	EEE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on the Prevention on Monsoon Season Diseases**

Date:27.09.2023

Venue: Sudhapalli

On 27th September 2023, Awareness on the prevention of monsoon season diseases was organized by the EEE department of NSS – UEAC wing in suddapalli.

This event aimed to create awareness on the prevention of monsoon season diseases like dengue, malaria, etc. and provide some preventive and safety measures to overcome the diseases. The target audience for this event was the villagers near Vignan's university.

This event began at 10:30 am with a total of 35 students from the EEE department including the chief organizer, chief coordinator and section coordinators.

The volunteers divided into groups and spread across the village and created awareness among the villagers on, how to come across the monsoon season diseases and told them the safety measures and preventive steps to take care of themselves.

In conclusion, the villagers got the awareness about diseases that occur in monsoon season and steps to prevent them.



Awareness on Monsoon Season Diseases on 27.09.2023

List of Volunteers:

Awareness on Prevention on Monsoon Season Diseases on 27.09.2023			
S. No	Reg. No	Name	Branch
1	211FA06034	DAMMU YASWANTH NAVEEN KUMAR	EEE
2	221FA06010	TUMULURI SRI GANESH CHANDRA	EEE
3	211FA06033	SUDA MARUTHI GOPI CHAND	EEE
4	211FA06005	CHAVALAMUDI SAI MONIKA	EEE
5	221FA06020	MEDIKONDA LAKSHMI SUKANYA	EEE
6	211FA06037	GUDIPALLI TEJA	EEE
7	211FA06035	MANDAGIRI NAVEEN VINAY	EEE

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8	211FA06025	MAJETI SATYA MOHANA KRISHNA	EEE
9	221FA06015	CHIMATA PREM SAI	EEE
10	211FA06004	MEJANRAO SUSHMA	EEE
11	211FA06032	VAKA NAGA PRATHAP	EEE
12	211FA06008	RAJANALA ANNAPURNA DEVI	EEE
13	221FA06011	SHAIK IMRAN BASHA	EEE
14	221FA06019	MUNNANGI VARSHITHA	EEE
15	211FA06036	CHATTI GURU SAI KUMAR	EEE
16	221FA06007	SEETALAPU UMESH NAGA CHANDRA	EEE
17	201FA06003	VEJENDLA AKASH	EEE
18	221FA06031	ATTILI PRABHAKAR VENKATA SAI	EEE
19	221FA06021	PEDDIRAJU LEELA VENKATA LAKSHMI	EEE
20	201FA06005	AHMED NADIR ABDELMAGID MOHAMED	EEE
21	221FA06013	SANCHULA BADARI AJITH NARAYANA	EEE
22	221FA06025	BOLLU LOKESWARI	EEE
23	201FA06007	ADDEPALLI VASAVI KALYANI	EEE
24	211FA06001	THOTA YASWITHA	EEE
25	221FA06023	NALAMOTU VENKATA SACHIN	EEE
26	211FA06009	VEMURI MOHANA ARAVIND	EEE
27	221FA06024	MOHAMMAD MAHABUBE SUNAYN	EEE
28	221FA06012	SUNKARA EKESWARA REDDY	EEE
29	221FA06014	MYLA JAYANTH KOUSTHUBHA ESWAR	EEE
30	201FA06008	BANTY KUMAR PRASAD	EEE
31	211FA06010	VEMULA CHARAN	EEE
32	221FA06022	ONTIPULLI BALA SUBRAMANYAM	EEE
33	211FA06029	TAVVA SAIMANIKANTHA	EEE
34	211FA06011	VARAGANI ANJANEYULU	EEE
35	211FA06021	KANDRU NOKESH	EEE



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**University Extension Activity Council (UEAC)
Annual Report – 2023-24**

Awareness on Watershed Management and Wasteland Development

Date: 27.09.23

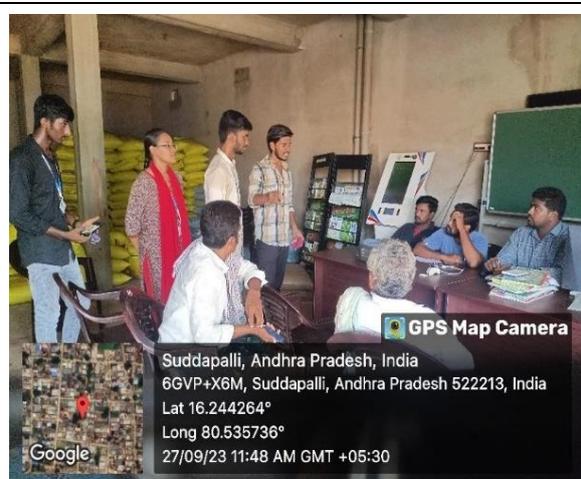
Venue: Sudhapalli

On 27th September 2023, Awareness on watershed management and wasteland development was organized by the NSS – UEAC wing of VFSTR in Suddapalli (a village near Vignan University) and it was organized by the EEE department.

This event aimed to create awareness on watershed management and wasteland development among the villagers of the village of Suddapalli by explaining that Water sheds play a pivotal role in maintaining water quality, regulating flow and supporting biodiversity. Implementing practices like afforestation, soil conservation and efficient water use. Wasteland development helps in increasing soil fertility, increased vegetation cover, and enhanced biodiversity. We also explained other practices for watershed management and wasteland development like how to store rainwater and to develop the wasteland by doing organic farming on the land that is not in use and using methods like crop rotation to develop the wasteland. The target audience for this event was the villagers near Vignan University.

This event began at 10:30 am with a total of 35 students from the EEE department including the chief organizer, chief coordinator and section coordinators. The volunteers have divided into groups and spread across the village and created awareness among the villagers on, watershed management and development of the wasteland and suggested some methods to the villagers.

In conclusion, the villagers became awareness on the development of wasteland and watershed management, they got knowledge on some practices like rainwater storing, organic farming and crop rotations which help in watershed management and wasteland development.



Awareness on Watershed Management and Wasteland Development 27.09.2023

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**University Extension Activity Council (UEAC)
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List of Volunteers:

Awareness on Watershed Management and Wasteland Development on 27.09.2023			
S. No	Reg. No	Name	Branch
1	211FA06034	DAMMU YASWANTH NAVEEN KUMAR	EEE
2	221FA06010	TUMULURI SRI GANESH CHANDRA	EEE
3	211FA06033	SUDA MARUTHI GOPI CHAND	EEE
4	211FA06005	CHAVALAMUDI SAI MONIKA	EEE
5	221FA06020	MEDIKONDA LAKSHMI SUKANYA	EEE
6	211FA06037	GUDIPALLI TEJA	EEE
7	211FA06035	MANDAGIRI NAVEEN VINAY	EEE
8	211FA06025	MAJETI SATYA MOHANA KRISHNA	EEE
9	221FA06015	CHIMATA PREM SAI	EEE
10	211FA06004	MEJANRAO SUSHMA	EEE
11	211FA06032	VAKA NAGA PRATHAP	EEE
12	211FA06008	RAJANALA ANNAPURNA DEVI	EEE
13	221FA06011	SHAIK IMRAN BASHA	EEE
14	221FA06019	MUNNANGI VARSHITHA	EEE
15	211FA06036	CHATTI GURU SAI KUMAR	EEE
16	221FA06007	SEETALAPU UMESH NAGA CHANDRA	EEE
17	201FA06003	VEJENDLA AKASH	EEE
18	221FA06031	ATTILI PRABHAKAR VENKATA SAI	EEE
19	221FA06021	PEDDIRAJU LEELA VENKATA LAKSHMI	EEE
20	201FA06005	AHMED NADIR ABDELMAGID MOHAMED	EEE
21	221FA06013	SANCHULA BADARI AJITH NARAYANA	EEE
22	221FA06025	BOLLU LOKESWARI	EEE
23	201FA06007	ADDEPALLI VASAVI KALYANI	EEE
24	211FA06001	THOTA YASWITHA	EEE
25	221FA06023	NALAMOTU VENKATA SACHIN	EEE
26	211FA06009	VEMURI MOHANA ARAVIND	EEE
27	221FA06024	MOHAMMAD MAHABUBE SUNAYN	EEE
28	221FA06012	SUNKARA EKESWARA REDDY	EEE
29	221FA06014	MYLA JAYANTH KOUSTHUBHA ESWAR	EEE
30	201FA06008	BANTY KUMAR PRASAD	EEE
31	211FA06010	VEMULA CHARAN	EEE
32	221FA06022	ONTIPULLI BALA SUBRAMANYAM	EEE
33	211FA06029	TAVVA SAIMANIKANTHA	EEE
34	211FA06011	VARAGANI ANJANEYULU	EEE
35	211FA06021	KANDRU NOKESH	EEE



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University Extension Activity Council (UEAC) Annual Report – 2023-24 HEALTH CAMP

Date: 30.09.2023

Venue: Vejudla

We the team UEAC conducted a Health camp in Vejudla village on 30 September 2023. Ayushman Bhava aligns with the motto of "Sabka Saath Sabka Vikas" (Together with All, Development for All). This philosophy underscores inclusivity, leaving no one behind in healthcare access.

Our 45 NSS volunteers gathered people in the village with the help of panchayat and Anganwadi Asha workers and staff nurse office members and Asha workers and conducted a health camp in VEJENDLA Health Centre near Sachivalayam. Good health is the biggest treasure, to attract a huge number of people our NSS volunteers went to their houses and told them about the importance of the health camp and the importance of AYUSHMAN BHAV theme. Around 300 people attended the health camp. The director of the health camp in NEW DELHI "DR. SHRI HARSHA MANGLA(IAS)" along with the members of professional Doctor of Health centres provided health care services to the people. Free medicines and nutrition were distributed to the people.



List of Volunteers:

Health Camp on 30.09.2023			
S.No	Reg.No	Name	Branch
1	221FW01154	THUMATHI ARUN KUMAR	BSC HONS
2	201FA01037	RASINENI KUSUMASREE	BIOTECH
3	231FA16031	VOORA SRIVANI	BM

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4	221FA04009	SRIGAKOLAPU SAI BHARATH	CSE
5	221FA04404	DHADI RAVALI	CSE
6	211FA04443	KETHA KAVYA	CSE
7	211FA15029	SUNKARA NAGA RAJU	FT
8	231FA05309	AMAN GUPTA	ECE
9	211FK01017	DALAVAI KEERTHI	BBA
10	231FW01020	GOPISETTY VASAVI	BSC HONS
11	231FA14042	PALLA YUGENDRA AMAR BALAJI	BI
12	231FK01004	GUNJI GANGADHAR	BBA
13	231FK01026	BOMMINI YUVANAGA SAI	BBA
14	221FA04746	DINESH GUPTA	CSE
15	231FA04865	PUNUGULA HARI SIVA SAI MANIKANTA	CSE
16	221FA05200	JAMPANA ANIRUDH	ECE
17	201FA04284	KARI KAVYA SREE CHOWDARY	CSE
18	211LA06016	PATHAN AFRIN SULTHANA	EEE
19	221LA12005	LAKKA HARI PRASAD	AG
20	211FA04444	KOTLA PUJITHA	CSE
21	231FA19086	BEJAWADA HARIKA	CSECS
22	231FA04937	DODDA KAVYA SUCHARITHA	CSE
23	231FA18138	ARAVA PRIYA DARSINI	AIANDML
24	211FK01088	SHAIK FAIZULLA	BBA
25	231FA14046	VELPULA PRASANNA KUMAR	BI
26	221FA07050	MANUKONDA HARSHITHA	IT
27	211FW01041	THINNELAPUDI HARIKA	BSC HONS
28	221FW01060	MEKA NAVYA	BSC HONS
29	231FA04185	KOSANAM HEMA	CSE
30	211FK01040	KINTALI SAKETH	BBA
31	231FA04B51	DUDDU KULA VIKRAM	CSE
32	231FA04G79	DALVEER SINGH	CSE
33	221FA04564	KAKUMANU NITHIN CHANDRA	CSE
34	231FA18165	SIGIRISETTY LEELA VENKATA SASANK	AIANDML
35	221FA05125	DUGGA LAKSHMIKANTH REDDY	ECE
36	211FA04130	NALLABOTHU PRAVALLIKA	CSE
37	231FJ01025	SUMANT KUMAR GOND	BCA
38	211FA16012	ALAN TOMY	BM
39	221FK01049	MOHAMMAD FARJANA	BBA
40	231FA04D58	AKKINENI MEGHANA	CSE
41	231FW01076	SOWJANYA PENUMUDI	BSC HONS
42	221FA05014	MOHAMMAD HAMZA	ECE
43	211FA05201	KODURU SWATHI SREE	ECE
44	231FA07053	DESU VENKATA VYSHNAVI	IT
45	231FA04B94	JAVVAJI SAI KUMAR	CSE



**University Extension Activity Council (UEAC)
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Quiz Competition**

Date:30.09.2023

Venue: Sekuru, Government School

On the occasion of Gandhi Jayanti, the IT department students of Vignan University organized a National Service Scheme (NSS) event at the Government School located in the village of Sekuru. The event was done under the guidance of the Head of the IT Department Dr. Veeranjanyulu along with the UEAC coordinator Mr. Suresh Babu. The primary objective of this event was to promote education and celebrate the spirit of Mahatma Gandhi, who believed in the power of knowledge and the betterment of society through education. The NSS event commenced at 2:00 PM, with 35 enthusiastic IT department students taking an active role in conducting a quiz competition for the students of the Government School.

The event was designed to engage and inspire the young minds of the students, fostering a spirit of curiosity and a love for learning. The quiz competition featured questions related to Mahatma Gandhi. The atmosphere was electric, as the students from the Government School eagerly participated in the competition, showcasing their knowledge and quick thinking. The IT department students acted as quizmasters, encouraging and guiding the participants throughout the event.

Following the quiz competition, prizes were distributed to the winners to acknowledge their outstanding performance and motivate them to continue their pursuit of knowledge.



Quiz competitions on 30.09.2023

List of Volunteers:

Quiz competitions on 30.09.2023			
S.No	Reg.NO	Name	Branch
1	201FA07036	PARI POOJITHA	IT
2	201FA07038	NAMBURI SRI RAM	IT
3	201FA07084	BOYINA USHA SRI	IT
4	201FA07040	MANNE RUPA CHOWDARY	IT
5	201FA07083	PRAMOD KUMAR	IT

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6	201FA07043	YALAMARTHI SHANMUKHA SRI SAI RAMA KRISHNA	IT
7	201FA07082	RANJEET KUMAR DAS	IT
8	201FA07042	GANESUNI SANJANA	IT
9	211FA07001	VEMPATI GAYATHRI	IT
10	211FA07005	VELLANKI YOGITHA	IT
11	211FA07010	NARNE VENKATA GOPI	IT
12	211FA07015	PATHAN RIYAZ KHAN	IT
13	211FA07019	KAKI RAJESH	IT
14	211FA07025	KAMINENI RAVI TEJA	IT
15	211FA07029	SHAIK MOHAMMAD SAMIULLAH	IT
16	211FA07044	SHAIK MOULALI SAHEB	IT
17	211FA07051	YADLAPALLI RESWANTH SAI	IT
18	211FA07065	MANDU LEO SOWNESHWAR REDDY	IT
19	211FA07073	CHEKURI ANJANA	IT
20	221FA07002	KALLI SRAVYA	IT
21	221FA07008	KATRAGADDA JEYENDRA	IT
22	221FA07011	VUKOTI BHARATH VAMSI	IT
23	221FA07016	THOTA SRAVAN KUMAR	IT
24	221FA07021	SHAIK TAHIR	IT
25	221FA07027	GODAVARTHI NAGA PRAVALLIKA	IT
26	221FA07033	MANNAVA GANESH	IT
27	221FA07037	PARASA JAGADEESH GOWD	IT
28	221FA07045	SHAIK KHAJA MOHIDDIN CHISTY	IT
29	221FA07049	THADIVAKA ROHITA MANJU SAI	IT
30	221FA07056	GADIKOYI MANOJ	IT
31	221FA07060	HUSAMELDIN ISMAIL MAHMOUD MAGAN	IT
32	221FA07067	KOLLI AARATHI	IT
33	221FA07074	BATHULA VENKATA NAGA PAVAN JAYANTH	IT
34	221FA07083	AMMISSETTI VENKATA VAMSI KRISHNA	IT
35	221FA07104	PERUMALLA MOHITHA SAI	IT

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75th**University Extension Activity Council (UEAC)****Annual Report – 2023-24****Swachhta Hi Seva / Swachh Phakwada, “EkTareekhEkGhantaEkSaath”-
2023 at Vadlamudi**

Date:01.10.2023

Venue: Vadlamudi

University Extension Activity Council (UEAC) of Vignan University has organized “Swachhta Hi Seva / Swachh Phakwada, “EkTareekhEkGhantaEkSaath” programs which were floated by MHRD, UGC and AICTE to spread the message of cleanliness not only among the students but also in the surrounding areas. Cmde. Dr. M.S. Raghunathan, Registrar, Dr. M.S.S. Rukmini, Dean Student Affairs, Dr. Vijayababu Palukuri, UEAC Programme Officer, Dr. Nitchel Kiran, Associate Dean Student Affairs and Mr. D.SureshBabu, UEAC Coordinator along with 155 Student volunteers participated in the program and made a grand success. The theme ‘Cleanliness drive and Single-use plastic’, encouraged people to fulfill Mahatma Gandhi's vision of Clean India. The 'Swachh Bharat Abhiyan' is a massive mass movement that seeks to create a Clean India. Cleanliness was very close to Mahatma Gandhi's heart. A clean India is the best tribute we can pay to Bapu. Now the time has come to devote ourselves to the 'Swachhta' (cleanliness) of our motherland. As per the guidelines of MHRD, UGC and AICTE the higher educational institutions in India promote various cleanliness drives in the surrounding regions of the University. They also have given the schedule and plan of action from 01st October 2023. “EkTareekh EkGhanta EkSaath” on 1st October 2023 from 10:00 AM to 11:00 AM at Vadlamudi village to commemorate the services rendered by Gandhiji. All Centers are engaged in activities related to Cleanliness drive and Single-use plastic. The clean drive was conducted on the roads of Vadlamudi by dividing the total team into 4 groups and spreading it among the village for conducting the cleanliness drive. This Swachhta Diwas Celebrations on 1st Oct 2023 including ‘EkTareekh EkGhanta EkSaath Programme observed with slogans and displaying placards.





**University Extension Activity Council (UEAC)
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“EkTareekhEkGhantaEkSaath” on 1st October 2023 from 10:00AM to 11:00AM at Vadlamudi village



స్వచ్ఛతా హీ సేవ కార్యక్రమంలో పాల్గొన్న విజ్ఞాన్ విద్యార్థులు

విజ్ఞాన్ విద్యార్థుల స్వచ్ఛ భారత్

ప్రజాశక్తి-గుంటూరు

వడ్లమూడి విజ్ఞాన్ యూనివర్సిటీలోని యూఈఎస్సీ (యూనివర్సిటీ ఎక్స్టెన్షన్స్ యాక్టివిటీ కౌన్సిల్) ఆధ్వర్యంలోని ఎన్ఎస్ఎస్ విద్యార్థులు ఆదివారం యూనివర్సిటీ దత్త గ్రామమైన వడ్లమూడిలో స్వచ్ఛత హీ సేవా, వైద్య శిబిరంతో పాటు పలు సేవా కార్యక్రమాలను నిర్వహించారు. ఈ కార్యక్రమానికి రిజిస్ట్రార్ డాక్టర్ ఎంఎస్ రఘునాథన్ మాట్లాడుతూ పరిసర ప్రాంతాలను పరిశుభ్రంగా ఉంచుకోవడం, సింగిల్ యూజ్ ప్లాస్టిక్

గురించి వివరించారు. వైరల్, డెంగీ, మలేరియా వంటి వ్యాధుల బారిన పడకుండా తీసుకోవాల్సిన జాగ్రత్తలను గ్రామస్తులకు తెలిపారు. అనంతరం గ్రామంలోని రోడ్లను ఊడ్చి శుభ్రం చేశారు. అమరావతి హాస్పిటల్ డాక్టర్ శివ రత్నాకర్ ఆధ్వర్యంలోని వైద్య బృందం సహాయంతో గ్రామస్తులకు రక్త పరీక్షలతో పాటు బీపీ వంటి ఇతర ఆరోగ్య పరీక్షలు నిర్వహించారు. కార్యక్రమంలో ఆయా విభాగాల డీన్లు, అధిపతులు, యూఈఎస్సీ ప్రోగ్రామ్ ఆఫీసర్, కో-ఆర్డినేటర్, విద్యార్థులు, గ్రామస్తులు పాల్గొన్నారు.

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List of volunteers:

Swachhta Hi Seva / Swachh Phakwada, “EkTareekh EkGhanta EkSaath”- 2023			
S. No	Reg. No	Name of the Student	Branch
1	211FA15006	PAVITHRA KOSARAJU	FT
2	211FK01072	PRADHAN KETAN	BBA
3	231FJ01054	SYED SHAILU	BCA
4	231FA15023	CHINTA RAM PRASAD	FT
5	231FA04C67	KONDAVEETI SAI GEETHIKA	CSE
6	231FA18110	MITTAPALLI MADHUMITHA	AIANDML
7	231FD01027	KONDA NAGA SAI PAVAN	MCA
8	231FK01061	KOTHAPALLI SRI LALITHA DEVI	BBA
9	231FA04227	JUJJURI SANDEEP	CSE
10	231FA20017	PANDITI HARSHA VARDHAN REDDY	CSBS
11	211FA04665	PRABHAT KUMAR RAJ	CSE
12	231FC01043	SHAIK AMEER BASHA	MBA
13	231FC01002	CHITTA KAVYA SRI	MBA
14	231FA15021	MAKKENA KARANI PRIYA	FT
15	221FK01073	SHAIK ASHRAF ALI	BBA
16	201FA04375	KOYA LEELA RAKESH	CSE
17	221LA08023	MUNNANGI BALA VENKATA MANIKANTA	MECH
18	221FA23008	MANDALAPU VISHNU VARDHAN KUMAR	DS
19	231FA04D09	VASIREDDY BHARGAV VENKAT RAM	CSE
20	221FA05090	RAATNALA SAMBASIVARAO	ECE
21	221FA18027	ADAPA AJAY	AIANDML
22	231FC01153	NAMBURU MANIKANTA	MBA
23	231FA04058	SHAIK SHAJIYA	CSE
24	211FA01030	PEDDISSETTY ANUSHA	BIOTECH
25	231FA04B97	KONAKALLA SAI VIVEK	CSE
26	231FC01065	UPPAUTOLLA VENKATA PAVANI KUMARI	MBA
27	231FA04233	DAVULURI DEEKSHITHA	CSE
28	211FA04214	MANDAPATI SRI LAKSHMI NARENDRA	CSE
29	221FA23058	DOSAPATI UMA VIGNESH	DS
30	231FW01081	SIRISAPALLI AKSHAY KUMAR	BSC HONS
31	231FJ01017	VICKEY KALOTRA	BCA
32	231FC01059	YENUGANTI SIVAKRISHNA	MBA
33	221FA04674	MEESALA SAI PUSHPAK	CSE
34	211FK01096	SHAIK SAMADH	BBA
35	211FA04580	CHIPPALA MOHAN	CSE
36	211FW01092	CHIRRA NEELIMA	BSC HONS
37	231FC01029	KARUMANCHI SHEKINAH MEGHANA	MBA
38	231FA04E42	PADIDEPU POOJA	CSE
39	231FA07121	BALA DEVENDRA REDDY	IT

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40	231FA05071	KARAMCHETI ROHITH	ECE
41	211FA04296	GUNTURU BHANUPRASAD	CSE
42	211FK01007	BHIMIREDDY USHA SRI	BBA
43	231LA08013	SREEKANTAM VENKATA SAI LAKSHMI BILAHARI	MECH
44	231FC01026	SURA VENKATA NAGA DURGA GIRIDHAR	MBA
45	211FA01071	DAYYAM AARTHI SATYA SUDHA	BIOTECH
46	221FA06018	SUDA JASWANTH	EEE
47	231FA04273	YEGULLA LAKSHMI SRI CHARANYA	CSE
48	211FA18026	VANTALA SWAMYNATH	AIANDML
49	231FA04523	GADAGOTTU SRI VARDHAN	CSE
50	221FW01089	ISUKALA KARTHIK	BSC HONS
51	221FA04132	SUMAN KUMAR SHARMA	CSE
52	231FA04361	SEETHALAPU CHANDRIKA	CSE
53	221FA01052	NANDAGARI MEGHANA	BIOTECH
54	231FA05151	VELLATURI GANESH	ECE
55	201FA01023	LINGALA SAI MAHESH	BIOTECH
56	211FJ01074	MANDHALAPU SANJAY KUMAR	BCA
57	201FA07075	JUHI KUMARI	IT
58	221FJ01051	NAVYA TIWARI	BCA
59	221LA03008	SHAIK ABDUL SAMEER	CIVIL
60	231FA04489	SOMEPELLI BHAVITHA	CSE
61	231FA18073	KAKUMANU KOMALA HARSHITHA	AIANDML
62	231FA18013	SHAIK SAFIYA	AIANDML
63	221FA18056	PATAKAMUDI VIJAYA LAKSHMI	AIANDML
64	221FA04373	SHAIK MUJAHID HUSSAIN	CSE
65	221LA21003	KOTA VAMSI KRISHNA	RA
66	231FA18315	BHOJANAPALLI SAI PRANATHI	AIANDML
67	221FA16018	DAVULURI VINEELA	BM
68	231FA18198	GUMMADILLI AHALYA	AIANDML
69	231FA04D43	SHAIK ABDUL RAZIQ	CSE
70	201FA04166	REDDY. BHAVANA	CSE
71	221FA05058	BEZAWADA MANIKANTA	ECE
72	211FA04079	CHANDRA RAGHAVENDRA SANDEEP	CSE
73	231FA04827	THOTA MONIKA	CSE
74	221FA05028	DOGUPARTHI NAGA SUMANTH	ECE
75	201FA14001	A KEERTHI MEGHANA	BI
76	211FA05209	SYED ABDUL KALAM	ECE
77	231FA04862	RAHUL KUMAR	CSE
78	211FM01029	PAVULURI SAI SRAVYA	BSC
79	211FA04577	POTTAMSETTY SAICHARAN	CSE
80	231FK01128	UCHA HARSHITH SRI VASTAVA	BBA
81	221FD01043	MEESALA VENKATA RAJU	MCA

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82	221FK01036	JAKKU VENKATA VIJAY REDDY	BBA
83	221FC01089	PULIKAM PRIYANKA	MBA
84	211FA04461	PASUPULETI BHARATWAJ TEJA	CSE
85	211FK01130	NALABOLU BHARGAV RAM KRISHNA	BBA
86	201FA14026	YARRAMSETTY MANOJ KUMAR	BI
87	231FA05102	CHITTIMENU SAI PAVAN TEJA	ECE
88	231FA18149	UMESH BORRA	AIANDML
89	231FA04125	BADRI NIKIL	CSE
90	211FW01066	SAGILI OBULAREDDY	BSC HONS
91	231FA19007	KAKI MOHAN MURALI SIVA RAMAKRISHNA	CSECS
92	231FA05209	KOKKILIGADDA KOTESWARA RAO	ECE
93	221FA18010	VANAMA HYMA AISHWARYA	AIANDML
94	211FA04601	SEELAM NARASIMHA RAO	CSE
95	201FA04231	LANKI REDDY SRIYA REDDY	CSE
96	211FK01105	VADAKATTU BRUNDA SRIYA	BBA
97	211FM01054	SHAIK MUHAMMAD TAZEEM AHAMED	BSC
98	201FA07034	KARTHIK REDDY VANUKURI	IT
99	231FA04E85	VELPURI BHANU TEJA	CSE
100	211FA04155	SHAIK MASTAN VALI	CSE
101	231FA01081	BALAGAM TANVI SAI RANGAMANI	BIOTECH
102	231FC01131	MALLU PUJITHA	MBA
103	211FA04629	VENNAPU YASHWANTH	CSE
104	211FA05110	ABDUL SATTAR	ECE
105	231FA04B54	PATHAN HAPSA	CSE
106	231FA04884	KOTA NAGALAKSHMI	CSE
107	231FA04772	KANDUKURI LEELADEVI PRASANNAVATHI	CSE
108	231FA04563	BEESABATHUNI NAGA TEJASWI	CSE
109	221FA07128	KURAPATI SAI KUMAR RAJU	IT
110	231FK01012	GUNDA YASHWANTH	BBA
111	211FA05051	DEVARAPALLI CHAITANYA KRISHNA REDDY	ECE
112	221FA04113	SIKHINAM MERCY	CSE
113	231FA04731	GADIPUDI SATHVIKA	CSE
114	221FC01118	VENNAPUSA MOUNIKA	MBA
115	231FA18098	YANAMACHINTHALA NAGALATHA	AIANDML
116	211FA04437	SIVA RAMA SANDILYA PONNEKANTI	CSE
117	231FK01133	KOTTURU JASWANTH	BBA
118	231FA04D18	DASARI YUGA VINOD	CSE
119	231FA05004	MADINETI SIVA TEJA	ECE
120	221FA04415	CHAPPIDI HEMANTH	CSE
121	221FA01183	GUMMADI VIGNA NAGA SANTHOSHI	BIOTECH

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122	231LA21001	SOMASI BHARGAVI	RA
123	231FA14098	SIMHADRI SANDEEP	BI
124	221FA04576	YENNA KEERTHI	CSE
125	211FA04069	PABBINEEDI BRAMARAMBIKA SRI SATYA SARANYA	CSE
126	231FA15029	CHIMATA NAGA NITHISH	FT
127	231FA01003	PAKALA PUJITHA	BIOTECH
128	211FA05011	RALI JAGADEESH	ECE
129	201FA04357	KARISE SUMANA ANGEL	CSE
130	231FA04432	REDDY BALA RAJU	CSE
131	231FA18112	VARADA HARSHITH DHANA MEHAR	AIANDML
132	211FA04366	UPPULURI ROHITSAI	CSE
133	231FJ01031	JONNALAGADDA SRI LEKHA	BCA
134	211FA05218	LIKHITHA LANKIREDDY	ECE
135	211FA01093	PASALAPUDI TEJA SATYA SRI	BIOTECH
136	231FA04F33	MADISETTY BHADRY	CSE
137	201FA04422	AA YUSHI SINGH	CSE
138	231FA18407	KONDISSETTY SAI BRAHMENDRA	AIANDML
139	211FA15020	JANNU KOMALA SAI GOWTHAMI	FT
140	221FA01033	SHAIK RIZWAN AHMAD	BIOTECH
141	221FA18135	TIYYAGURA HARIKA	AIANDML
142	221FA01115	MANDAVA BALAJI	BIOTECH
143	231LA06006	GOLLA NAGA VENKATA SAI MANIKANTA YADAV	EEE
144	211FA16022	SIDDULA LAKSHMI THIRUPATAMMA	BM
145	221FA04425	SANAGAPALLI CHARISHMA	CSE
146	231FA04B93	KALLEM LAXMINARAYANA	CSE
147	221FC01113	ABHISHEK RAJ	MBA
148	231FA04551	SANDIP KUMAR	CSE
149	221FA20003	DOSAPATI YASWANTH GUPTHA	CSBS
150	201FA04286	PUSULURI SADVIKA	CSE
151	221LA05020	ADIRALA MOHANA MUKUNDA	ECE
152	211LA03006	SHAIK MASTHANAMMA	CIVIL
153	221FA07082	DUDYALA SAILAJA	IT
154	231FA23057	GANTI PRUDHVI TEJA	DS
155	221FW01134	PANDARABOIANA TIRUMALESHU	BSC HONS



University Extension Activity Council (UEAC)
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A Book from you

Date:05.10.2023

Venue: Brahmanakoduru

We the team UEAC have conducted a book distribution event at Brahmanakodur orphanage home. Our university students have donated around 1100 books for distribution. The main aim of the event is to encourage students to engage actively in the learning process.

Our team UEAC members collected books from the university students and distributed them to needy ones. They have collected around 1100 Notebooks and distributed 200 notebooks in the Brahmanakodur orphanage home, and the remaining books will be distributed soon. Notebook distribution plays a crucial role in improving educational access and quality for underprivileged students. Notebooks are essential tools for learning. They provide a platform for students to write, practice and consolidate their knowledge. This is one of the best events to improve the quality of education.

Our UEAC team members including core leads, vertical members, chief organizers and 65 volunteers gathered in college by 2:40 PM. The event started at 3:00 PM by assembling the members in the orphanage home. They started distributing the books to all the students present there. Finally, the event was completed at 5:00 PM.



A Book from You on 05.10.2023

List of Volunteers:

A Book from You on 05.10.2023			
S. No	Reg. No	Name of the Student	Branch
1	231FA04233	DAVULURI DEEKSHITHA	CSE
2	231FA04D09	VASIREDDY BHARGAV VENKAT RAM	CSE
3	231FC01043	SHAIK AMEER BASHA	MBA
4	231FJ01017	VICKEY KALOTRA	BCA
5	231FC01065	UPPAUTOLLA VENKATA PAVANI KUMARI	MBA

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6	221FA04132	SUMAN KUMAR SHARMA	CSE
7	231FW01081	SIRISAPALLI AKSHAY KUMAR	BSC HONS
8	231FK01061	KOTHAPALLI SRI LALITHA DEVI	BBA
9	221FA01052	NANDAGARI MEGHANA	BIOTECH
10	211FK01072	PRADHAN KETAN	BBA
11	201FA01023	LINGALA SAI MAHESH	BIOTECH
12	221LA08023	MUNNANGI BALA VENKATA MANIKANTA	MECH
13	231FA04489	SOMEPELLI BHAVITHA	CSE
14	231FA20017	PANDITI HARSHA VARDHAN REDDY	CSBS
15	221FA04373	SHAIK MUJAHID HUSSAIN	CSE
16	231FC01059	YENUGANTI SIVAKRISHNA	MBA
17	211FA01071	DAYYAM AARTHI SATYA SUDHA	BIOTECH
18	211FA04580	CHIPPALA MOHAN	CSE
19	231FC01153	NAMBURU MANIKANTA	MBA
20	211FA04296	GUNTURU BHANUPRASAD	CSE
21	211FA15006	PAVITHRA KOSARAJU	FT
22	231FA04E42	PADIDEPU POOJA	CSE
23	221FA18056	PATAKAMUDI VIJAYA LAKSHMI	AIANDM L
24	221LA21003	KOTA VAMSI KRISHNA	RA
25	231FA04058	SHAIK SHAJIYA	CSE
26	211FA04214	MANDAPATI SRI LAKSHMI NARENDRA	CSE
27	221FK01073	SHAIK ASHRAF ALI	BBA
28	231FA04273	YEGULLA LAKSHMI SRI CHARANYA	CSE
29	231FC01026	SURA VENKATA NAGA DURGA GIRIDHAR	MBA
30	221FA18027	ADAPA AJAY	AIANDM L
31	211FK01096	SHAIK SAMADH	BBA
32	221FA04674	MEESALA SAI PUSHPAK	CSE
33	231FC01002	CHITTA KAVYA SRI	MBA
34	221FA23058	DOSAPATI UMA VIGNESH	DS
35	231FA04361	SEETHALAPU CHANDRIKA	CSE
36	211FA18026	VANTALA SWAMYNATH	AIANDM L
37	201FA07075	JUHI KUMARI	IT
38	211FA01030	PEDDISSETTY ANUSHA	BIOTECH
39	231FA18073	KAKUMANU KOMALA HARSHITHA	AIANDM L
40	221FA05090	RAATNALA SAMBASIVARAO	ECE
41	231FA05151	VELLATURI GANESH	ECE

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42	221LA03008	SHAIK ABDUL SAMEER	CIVIL
43	231FA15021	MAKKENA KARANI PRIYA	FT
44	231FA04B97	KONAKALLA SAI VIVEK	CSE
45	231FA05071	KARAMCHETI ROHITH	ECE
46	231FA04523	GADAGOTTU SRI VARDHAN	CSE
47	221FA06018	SUDA JASWANTH	EEE
48	231FA04C67	KONDAVEETI SAI GEETHIKA	CSE
49	231FA18013	SHAIK SAFIYA	AIANDM L
50	221FA23008	MANDALAPU VISHNU VARDHAN KUMAR	DS
51	231FA15023	CHINTA RAM PRASAD	FT
52	211FW01092	CHIRRA NEELIMA	BSC HONS
53	231FC01029	KARUMANCHI SHEKINAH MEGHANA	MBA
54	231LA08013	SREEKANTAM VENKATA SAI LAKSHMI BILAHARI	MECH
55	231FA07121	BALA DEVENDRA REDDY	IT
56	221FW01089	ISUKALA KARTHIK	BSC HONS
57	231FA04227	JUJJURI SANDEEP	CSE
58	221FJ01051	NAVYA TIWARI	BCA
59	211FJ01074	MANDHALAPU SANJAY KUMAR	BCA
60	211FK01007	BHIMIREDDY USHA SRI	BBA
61	231FD01027	KONDA NAGA SAI PAVAN	MCA
62	211FA04665	PRABHAT KUMAR RAJ	CSE
63	231FA18110	MITTAPALLI MADHUMITHA	AIANDM L
64	231FJ01054	SYED SHAILU	BCA
65	201FA04375	KOYA LEELA RAKESH	CSE



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University Extension Activity Council (UEAC) Annual Report – 2023-24 Awareness on Cyber Security Crimes

Date:06.10.2023

Venue: Angalakuduru

The UEAC team from the Biomedical branch conducted an awareness event on Cyber Security Crimes in Angalakuduru village on October 6, 2023. The primary objective was to educate individuals, particularly children, about online threats such as grooming, bullying, and stalking. The event emphasized the importance of digital safety and the need for responsible online behavior, urging parents and guardians to monitor online activities to ensure a secure cyber environment.

The NSS section coordinators, chief coordinators, and volunteers organized an awareness camp, engaging with the community through house visits and interactive discussions on the significance of cybersecurity. Around 15 participants attended the session, gaining valuable insights into preventive measures against cyber threats, including the identification of phishing scams and fraudulent activities. The event aimed to strengthen community awareness by promoting best practices in cybersecurity and safe internet usage.

The UEAC team, including section and main organizers, coordinators, and 35 volunteers, assembled at the college, marking the start of the event at 11:30 AM. The session concluded at 2:00 PM, successfully disseminating knowledge on cyber security risks and preventive strategies. Through this initiative, the team reinforced the importance of cybersecurity awareness in protecting sensitive information and preventing data breaches.



Awareness on Cyber security Crimes at Angalakuduru on 06.10.2023

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**University Extension Activity Council (UEAC)
Annual Report – 2023-24**

List of Volunteers:

Awareness on Cyber Security Crimes on 06.10.2023			
S.No	Regd. No	Name	Branch
1	221FA01031	K. RAVEENA	BM
2	221FA01014	T. VASUNDHARA	BM
3	221FA01029	M. ASHRITHA	BM
4	221FA01004	AMRESH KUMAR	BM
5	221FA01053	TULASI VARANASI	BM
6	221FA01005	PRINCE KUMAR	BM
7	221FA01052	N. MEGHANA	BM
8	221FA01020	SUNNY KUMAR	BM
9	221FA01027	NITISH KUMAR	BM
10	221FA01001	SAKLEN RAZA	BM
11	221FA01010	M. PRAVALLIKA	BM
12	221FA01063	SUCHITHA SHARON	BM
13	221FA01104	J. TRIVENI	BM
14	221FA01112	B.V. HEMAHARSHINI	BM
15	221FA01183	G.V.N. SANTHOSHI	BM
16	221FA01167	D. MADHAVI	BM
17	221FA01163	SK. HARSHAD	BM
18	221FA01136	A. CHANDRIKA	BM
19	221FA01112	HARSHINI	BM
20	221FA01146	HUSSAIN	BM
21	221FA01148	LALITHA	BM
22	221FA01164	SD. NAZIYA	BM
23	221FA01191	DIKSHA KUMARI	BM
24	221FA01206	MS. SAHIL	BM
25	221FA01152	MOKSHITHA	BM
26	221FA14047	S. GEETHIKA	BM
27	221FA14028	SK. HABIB	BM
28	221FA14049	R. YASAWI	BM
29	221FA14007	MAMATHA	BM
30	221FA14015	B. ALEKHYA	BM
31	221FA14020	R. HARSHITHA	BM
32	221FA14033	A. SOUMYA	BM
33	221FA14055	V. VAISHNAVI	BM
34	221FA14004	S. BHARGHAVI	BM
35	221FA14056	K. SATHWIKA	BM



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University Extension Activity Council (UEAC) Annual Report – 2023-24

Women Health and Safety

Date:06.10.2023

Venue: Angalakuduru

The UEAC team from the Biomedical branch conducted an awareness event on Women's Health & Safety in Angalakuduru village on October 6, 2023. The event aimed to promote awareness on women's safety and empowerment, emphasizing the need for proactive measures to prevent lifelong trauma and ensure a secure environment for all.

The NSS section coordinators, chief coordinators, and volunteers conducted an awareness camp on Women's Health & Safety, emphasizing the importance of women's well-being and security. The team engaged with community members through house visits, highlighting the need for strategies, policies, and safe spaces to reduce gender-based violence and ensure safety. The session saw active participation from 15 attendees, contributing to the goal of fostering a safer and more informed society.

UEAC team members including section and chief organizers and coordinators and 35 volunteers gathered in college. The event started at 11:30 PM by gathering the people. Finally, the event was completed at 2:00 PM.



Awareness on Women Health and Safety at Angalakuduru on 06.10.2023

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List of Volunteers:

Awareness on Women Health and Safety on 06.10.2023			
S.No	Regd. No	Name	Branch
1	221FA01031	K. RAVEENA	BM
2	221FA01014	T. VASUNDHARA	BM
3	221FA01029	M. ASHRITHA	BM
4	221FA01004	AMRESH KUMAR	BM
5	221FA01053	TULASI VARANASI	BM
6	221FA01005	PRINCE KUMAR	BM
7	221FA01052	N. MEGHANA	BM
8	221FA01020	SUNNY KUMAR	BM
9	221FA01027	NITISH KUMAR	BM
10	221FA01001	SAKLEN RAZA	BM
11	221FA01010	M. PRAVALLIKA	BM
12	221FA01063	SUCHITHA SHARON	BM
13	221FA01104	J. TRIVENI	BM
14	221FA01112	B.V. HEMAHARSHINI	BM
15	221FA01183	G.V.N. SANTHOSHI	BM
16	221FA01167	D. MADHAVI	BM
17	221FA01163	SK. HARSHAD	BM
18	221FA01136	A. CHANDRIKA	BM
19	221FA01112	HARSHINI	BM
20	221FA01146	HUSSAIN	BM
21	221FA01148	LALITHA	BM
22	221FA01164	SD. NAZIYA	BM
23	221FA01191	DIKSHA KUMARI	BM
24	221FA01206	MS. SAHIL	BM
25	221FA01152	MOKSHITHA	BM
26	221FA14047	S. GEETHIKA	BM
27	221FA14028	SK. HABIB	BM
28	221FA14049	R. YASAWI	BM
29	221FA14007	MAMATHA	BM
30	221FA14015	B. ALEKHYA	BM
31	221FA14020	R. HARSHITHA	BM
32	221FA14033	A. SOUMYA	BM
33	221FA14055	V. VAISHNAVI	BM
34	221FA14004	S. BHARGHAVI	BM
35	221FA14056	K. SATHWIKA	BM



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University Extension Activity Council (UEAC) Annual Report – 2023-24

SWACHH VIGNAN- CLEAN AND GREEN WITH PLASTIC FREE ENVIRONMENT

Date: 07.10.2023

Venue: VFSTR

The team UEAC conducted a “Plastic Free Environment” on 07.10.2023 in the VFSTR premises from 03:00 PM to 4:00 PM. Swachh Bharat Abhiyan is a nationwide campaign that was launched by the honourable Prime Minister of India Narendra Modi on October 2, 2014. The main objective of this program is to make India a clean and green country

The main purpose of this program is to create cleanliness awareness among the students and its benefits. Under this program, the UEAC volunteers actively participated. The UEAC Programme Officer all department UEAC faculty coordinators and the University UEAC coordinator encouraged the students by giving some facts about the importance of hygiene and cleanliness of our surroundings. We human beings should be more responsible in making our surroundings clean and making it a better place to live in.

The UEAC Programme Officer, Dr. Vijayababu Palukuri and the Assistant Registrar, Mr. Vijay along with 752 students of all the departments actively participated in the cleanliness drive at five blocks of the university. The volunteers spread into four or five groups and collected the plastic bottles, wrappers, covers and glasses in and around A-block & Library, H block & Sport ground (opposite OAT), N-block surroundings & MHP, Pharmacy block. A special thanks to all the volunteers who contributed selflessly to this good notion and made it a great success.



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“Plastic Free Environment” on 07.10.2023 in the VFSTR premises from 03:00PM to 4:00PM.

List of volunteers:

SWACHH VIGNAN- CLEAN AND GREEN WITH PLASTIC FREE ENVIRONMENT on 07.10.2023			
S. No	Reg. No	Name of the Student	Branch
1	201FA04382	ALLA HEMA NISHITA	CSE
2	221FA01102	VADLAMANNATI AKSHAYA	BIOTECH
3	211FA04627	GUMMUDU SUMALATHA	CSE
4	231FA18436	IRRI VENKATA SAI KARTHIK	AIANDML
5	231FA04899	MULPURI MUKUNDA NAGA DATTA SARMA	CSE
6	221FA23005	GEETHA M	DS
7	211LA06015	PATHAN MOHAMMED KHAN	EEE
8	231FA14011	GUDAPATI GNANA AASRITHA	BI
9	211FA05257	SUNKARA DINESH KUMAR	ECE
10	221FA04632	KANNA KAVYA NANDINI	CSE
11	231FA04E08	EPPALA TEJA SRI	CSE
12	221FA14068	DEVIREDDY MALLA REDDY	BI
13	221FC01133	AADURI PAVAN NAGA VENKATA SEKHAR	MBA
14	211FA14061	SHARON KUMAR MUNAGATI	BI
15	201FA04202	CHITTURI YESWANTH	CSE
16	211FA04047	YETUKURI VINAY	CSE
17	231FA07027	DASARI VENKATA SRIKANTH	IT
18	231LA18001	PADALA VISHWA BADRINADH	AIANDML
19	211FA04451	SRUNGAVARAPU HARSHA VARDHAN	CSE
20	211FA05109	MUNNANGI HARI VARDHAN	ECE

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21	211LA06017	CHIMAKURTHI THULASI MAHA LAKSHMI	EEE
22	231FA04034	GOTTAM MASTHAN RAO	CSE
23	231FC01084	KUKKALA POOJITHA	MBA
24	231FA04672	PATHURI SAICHANDH	CSE
25	221FC01027	YELURI ADITHYA MANIKANTA	MBA
26	231FA04D29	GORANTLA ASRITHA	CSE
27	231FA04875	VEMIREDDY KEERTHI	CSE
28	211FA07095	GUDIPATI VINITA	IT
29	231FA14033	MIDABALA SRINIVAS	BI
30	211FA04261	MANDELA KESAVA SAI MANIKANTA	CSE
31	221FA04146	KARUMANCHI JASWANTH TULASI NADH	CSE
32	221FW01061	NANDAM PHANINDRA SUBHASH	BSC HONS
33	211FA18015	SEELAM RUCHITHA MAHI	AIANDML
34	221FA01073	YARLAGADDA AANATHI	BIOTECH
35	221FA07098	KATTA VAISHNAVI	IT
36	231FA05064	SHAIK PAKALAPATI MABU SUBHANI	ECE
37	201FA01072	MADALA HIMA SRI	BIOTECH
38	211FA04359	KUNDAKARLA MADHURI	CSE
39	201FA01092	PERUMALLA PRADEEPTHI NAVYA	BIOTECH
40	231FA04106	KANAMARLAPUDI SURYA CHANDRA GUPTHA	CSE
41	231FJ01064	SHAIK MOHAMMAD ATHEEF	BCA
42	231FA01102	SHAIK BABI	BIOTECH
43	221FA04406	ASODI TEERDHA GANESH REDDY	CSE
44	211FA15046	GADDAM HRUSHITHA	FT
45	201FA14037	C VENKATA SRIHITHA	BI
46	231FA04A86	TEJESH PERAM	CSE
47	231FA04898	SHAIK SAMEER	CSE
48	231FA04962	KANAKAM DIVYENDRA	CSE
49	231FA04844	KARI POOJITHA	CSE
50	211FA07027	KATARU RUSHIESWAR	IT
51	211FK01094	SHAIK RIHAN	BBA
52	231FA07086	PARASARAM HANUMANTH SRI VATSAVA	IT
53	231FA16037	PUDUCHERI PADMA SRI	BM
54	211FA05298	MEDI RAGHU	ECE
55	231FA18289	ALAPATI MEGHANA	AIANDML

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56	231FA18249	KOMMANABOINA SUDHEER KUMAR	AIANDML
57	231FA19032	PARACHALLA SUSMITHA	CSECS
58	231FA04272	ORSU LIKHITA PRIYA	CSE
59	211FJ01041	NIKITHA BEERAM	BCA
60	221FA04156	KOTHURU VENKATA NAGA SAI KIRAN	CSE
61	231FC01129	KARRI BHARGAVI	MBA
62	221FA04006	NARALASETTI BALA SAI	CSE
63	231FW01069	VENNA TEJASWI	BSC HONS
64	201FA04179	YARAGALLA KUMAR SAI	CSE
65	231FA04339	UDDANDA CHAKRAVARTHI	CSE
66	231FA04693	GADIREDDY SRI SRESHTA	CSE
67	211FA06036	CHATTI GURU SAI KUMAR	EEE
68	231FA04B50	KOLLURU VEDA SRI SURYA SASANK	CSE
69	211FA04440	NERELLA GEETHA SREE	CSE
70	211FA04641	PARISA KUMAR RAJA	CSE
71	211FA04080	BURRI SAHITHI	CSE
72	231FA05072	ERUVURI VENKATA VASU REDDY	ECE
73	211FA05098	PATNALA PADMAVATHI	ECE
74	211FA15014	KUCHIPUDI RAMA LAKSHMI SUNANDHANA	FT
75	231FA04838	KOYA NAVYA SRI	CSE
76	211FA18013	BONAGIRI SAI GEETHA	AIANDML
77	231FA04171	YERRIBOINA AMRUTHA	CSE
78	211FA04590	VISSA RAJA SAI SUMANTH	CSE
79	231FA04A78	KALLAGUNTA VENKATA LAKSHMI	CSE
80	201FA04074	REDDYVARI UDAY KUMAR REDDY	CSE
81	221FA23062	TUMMALA SOMASEKHAR	DS
82	221FW01094	NOOTHI GAYATHRI PRIYA	BSC HONS
83	211FK01009	BOMMAREDDY KAVYA	BBA
84	231FA04524	GUBBA VENKAT	CSE
85	231FA04A82	ALLAM VARSHINI	CSE
86	211FA04426	VUDUTHA LIKITHA	CSE
87	221FA04473	BATTULA HIMA BINDU	CSE
88	211FA01136	KOLLAMMAGARI SREE LEKHA	BIOTECH
89	231FA01002	MANCHIKALAPUDI PRANEETHA CHOWDARY	BIOTECH
90	201FA01027	KANUGOLU HEMANTH KUMAR	BIOTECH
91	231FA04B90	UPPALAPATI SRI BHUVANA LAKSHMI	CSE
92	201FA18009	SANAGALA BHAVANA	AIANDML

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93	231FW01091	CHIRADZA EMMANUEL ELIAS	BSC HONS
94	201FA04355	AYINAMPUDI NAGA SRIVALLI	CSE
95	231FW01001	AKKALA KUSUMA	BSC HONS
96	231FA18431	DARAM SRINIVASA REDDY	AIANDML
97	221FA18109	SHAIK SALWAR	AIANDML
98	211FA04116	JAMPANI BHAVYASREE	CSE
99	221FA04685	TIYYAGURA KARTHIKEYAN REDDY	CSE
100	211FA18018	SIDDAMSETTI VAMSI KRISHNA	AIANDML
101	221FA04591	EDARA SAI NAGA LAKSHMI	CSE
102	211FA15022	P.S.V.N.SRINIVAS	FT
103	231FK01101	DASARI HIMAGIRI	BBA
104	231FA14112	MOHAMMED FATHIMA KHAN	BI
105	221FA05079	PANIDAPU VARUN KANTH	ECE
106	221FA04603	GNANESHWAR REDDY DONTIREDDY	CSE
107	221FA05143	MATTAPARTHI VENKATESH	ECE
108	231FA07032	SOMAIAHGARI PREM CHAND	IT
109	231FK01042	JAMPANI SAI PRAVALLIKA	BBA
110	201FA04099	JANGA NAGA VENKATA GANESH	CSE
111	221FA14001	GUDAPATI KARTHIKEYA	BI
112	231FA05298	DASARI PRIDHVI MANJUNADH	ECE
113	231FA04557	GADIPARTHI ESWARI	CSE
114	231FA04028	PUSHADAPU GIRI SIVA SUBRAHMANYAM	CSE
115	221LA05009	AKULA SAI CHARITH	ECE
116	201FA15054	SYED RIYAZ AHAMMED	FT
117	201FA04361	KUNCHALA RAVI KIRAN REDDY	CSE
118	231FA23048	KAKUMANU KALANJALI	DS
119	211LA05009	BOLLU RAHUL	ECE
120	231FA05033	JASTI UDAY TEJA	ECE
121	221FA01063	NADIKATTU SUCHITA SHARON	BIOTECH
122	231FA04159	TUPAKULA SRIKANTH	CSE
123	211FW01044	TADIGIRI RATNA KUMARI	BSC HONS
124	231FA04D45	YENIGALLA SHANMUKH	CSE
125	211FA18010	JULURI SHIVA SAI	AIANDML
126	231FA04415	KUKATLA SRAVANI	CSE
127	231FA07062	POLINA VIJAYENDRA BABU	IT
128	211FA04602	JETTI SUBHASHINI	CSE
129	231FA04D54	KATTIKA KARTHIK VARMA	CSE
130	231FA15025	SHAIK ARFA BIBIJAAN	FT

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131	211FA19009	GOGADA JYOTHI SUBRAHMANYAM SAI	CSECS
132	231FA04F18	KOPPARAPU LAKSHMI PAVANI	CSE
133	221FA01010	MALLADI PRAVALLIKA	BIOTECH
134	231FC01119	KANCHUGANTLA SRINIVAS GOPI	MBA
135	221FA05187	DOSAKAYALA AKHILA	ECE
136	231FA04C10	BOBBELLA GANESH	CSE
137	231FA04D91	YALLA TEJA	CSE
138	201FA15044	PALLAMPARTHY SRI VARDHAN REDDY	FT
139	211LA10005	ATTHOTA ABHINAVA MANIKANTA CHOWDARY	AME
140	231FM01007	DOKKU JAHNAVI	BSC
141	231FA18200	KOTA VARUN	AIANDML
142	221FA04671	TUMMALA AKASH	CSE
143	201FA01063	DUVVURU PRAGNA REDDY	BIOTECH
144	231FA04993	TADIKAMALLA VASAVI LAKSHMI SREE	CSE
145	221FA07089	JAKKAM LAVANYA	IT
146	231FA14129	GUDA MAHESH REDDY	BI
147	231FA05014	SHAYESTA TARANNUM	ECE
148	231FA04383	KAMINENI PREM KUMAR	CSE
149	211FA04210	PALADUGU JAYANTH	CSE
150	221FA18092	GUNTURU TEJASWINI	AIANDML
151	211FA07007	NADIMPALLI MANI SALYA KUMAR	IT
152	231FW01050	PORANKI DHYAN SAI SRI	BSC HONS
153	231FA04522	RAMISETTY CHANDANA	CSE
154	231FA05186	BILLALA JAYASRI	ECE
155	211FA06014	BACHHANABOINA SAI PUJITHA	EEE
156	221FA05176	LINGA NANDINI	ECE
157	231FA16038	KAPULAPALLI LAKSHMI ASRITHA REDDY	BM
158	221FA06019	MUNNANGI VARSHITHA	EEE
159	211LA06002	P.ROJA	EEE
160	201FA04110	MUNDLAMURI AKHIL CHOWDARY	CSE
161	211FA04120	MANDALA ABHISHEK	CSE
162	201FA16030	TENALI JASWANTH	BM
163	221FA04456	PARADAPARAPU MOKSHAGNA	CSE
164	211FA04463	DHULIPUDI VENKATA KARTHIK	CSE
165	231FA04455	THUMMA YUVA KIRAN REDDY	CSE
166	231FA04614	SAYED NAYEEM	CSE
167	201FA04274	POLU VIJAY SHEKAR REDDY	CSE

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168	231FA04878	KASSETTY LOHITH KUMAR	CSE
169	221FA14043	DUDEKULA SAFIYA	BI
170	211FA07140	MALLIPEDDI NAGA YAMINI	IT
171	211FA01014	TUPAKULA SANDHYA	BIOTECH
172	211FA04390	PARIMI VENKATA SAI YOGESWAR	CSE
173	211FA04460	RAVIPUDI LAKSHMI PRASANNA	CSE
174	231FA04F53	GUDE LAKSHMI VENKATA HARSHITHA	CSE
175	221LA12003	PANNALA KEERTHI SRI	AG
176	221FA01027	NITISH KUMAR	BIOTECH
177	231FW01017	GANGULA NAGA SIDDESWARI	BSC HONS
178	211FA08007	BATTULA KALYAN RAM	MECH
179	231FA05022	VENNAPUSA ANUGNA	ECE
180	231FA16041	KUDULLA BHAGYA SRI	BM
181	211FA05303	AMUDALA SAI BABJI	ECE
182	211FA04077	JONNALAGADDA M V LAKSHMI HARSHITHA	CSE
183	211FK01145	SAKALABATHULA MONALISA	BBA
184	231FA05229	POOLA GIRISH NAIDU	ECE
185	231FA05122	BANDARU NAGA SREEKAR	ECE
186	221FA04725	ADITYA KUMAR	CSE
187	231FA19056	GANTA BHARGAVI	CSECS
188	211FA04128	ANNAM JAYASRI	CSE
189	221FA04644	BACHINA NIKHILESH	CSE
190	211FA06010	VEMULA CHARAN	EEE
191	231FA04D31	YETESH NAIDU NAVABOTHU	CSE
192	231FA14082	BAINENI JASWANTH SAI	BI
193	201FA04334	KONDRAGUNTA NEHA	CSE
194	231FA04207	THIPPAREDDY YASHASWINI	CSE
195	231FA23011	DEVAKI GOPI KRISHNA KURAKULA	DS
196	221FW01171	DEV SHANKAR THAKUR	BSC HONS
197	221FA04087	YARRAMSETTY MANOJ	CSE
198	231FA04312	SHAIK MUNEER AHMED	CSE
199	221FC01053	KONDA KAVITHA	MBA
200	211FA21005	RAVINUTALA SREE SAI BHARGAV	RA
201	231FA04713	THIGURI NAGA MOHAN REDDY	CSE
202	201FA04291	CHAVA RANJITH KUMAR	CSE
203	211FA04431	MANDADAPU HRUSHIKESH	CSE
204	201FA04248	DARLA PHANI PRAHARSHA	CSE
205	231FM01002	KURRA HARSHA VARDHAN	BSC

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206	201FA04275	PADMANABHUNI JEEVANI VENKATA NAGA SAI LAKSHMI	CSE
207	211FJ01066	YEJENDLA VENKATA SANTOSHI PRANEETHA	BCA
208	211FA07022	POPURI SRIHARIKA	IT
209	231FA05092	GAINPISETTY BHAVYA SRI SAI	ECE
210	211FA04632	KANCHINADHAM SRI PRANATHI	CSE
211	221FK01088	POLISETTY S H N MANIKANTA	BBA
212	201FA07057	KAKANI NAVYA SRI	IT
213	231FA18400	YEPURI REVANTH	AIANDML
214	211LA05038	SANIKOMMU SRIKANTH REDDY	ECE
215	231FA07058	TALLA NAGA MALLESWARA RAO	IT
216	221FA01007	SAWAN KUMAR DAS	BIOTECH
217	211FM01006	BANDARU NANDINI	BSC
218	211FA07072	GADE GOWTHAM SAI	IT
219	231FA18113	DUPISETTY THANUJA	AIANDML
220	221FA04040	MUPPALLA BHAVYA SRI	CSE
221	221FA05034	VARIKALLU ANKARAO	ECE
222	211FK01076	RAVELLA HEMANTH SAI	BBA
223	211FM01012	GUDAPATI MOUNIKA LAKSHMI DURGA	BSC
224	211FA07105	SHAIK AASIF	IT
225	231FA19063	SHAIK SAFIYA MUSKAAN	CSECS
226	201FA07069	RASAMSETTY G V L BHARATH	IT
227	211FA02002	GUDIPUDI JAGADISHWAR RAO	CHEM
228	211FW01020	EMULA BAJI BABU	BSC HONS
229	221FA04689	SHAIK ARSHADRABBANI	CSE
230	221FA04223	KANDUKURI SIRISHA	CSE
231	221FA05225	CHERUKUMALLI SAI RAM	ECE
232	211FA04049	JAMIGUMPULA MANIKANTA	CSE
233	201FA01080	JAMMOJU VEERA VENKATA RAGHAVENDRA DHANUSH	BIOTECH
234	221FA04507	DIVYA GUPTA	CSE
235	231LA06028	BAKKA VARSHITHA	EEE
236	231FA04626	BELLAM SAI CHARAN	CSE
237	221FA04386	TALLURI LILADHAR AKHIL	CSE
238	231FK01087	DHANU SOWRAV KUMAR	BBA
239	211FM01058	ENDLA DIVAKAR REDDY	BSC
240	231FA05152	DONDAPATI LEELA VINOD KUMAR	ECE
241	231FA18390	KORUKONDA HIMA BINDU	AIANDML

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242	221FA04534	MODEM LAASYA	CSE
243	231FA05251	SHAIK FAYAZ	ECE
244	231FA03019	MATUMIKA ANASHE CHANTELE	CIVIL
245	231FA05183	MAKUTAM LAKSHMI DURGA JYOTHI	ECE
246	211FM01033	SANAM PRAVALLIKA	BSC
247	221FA04151	GANPISETTY MANEESHA	CSE
248	201FA16027	SHAIK AARIFA	BM
249	231FW01024	JAMMULA AMRUTHA SOWDHAMINI	BSC HONS
250	201FA01105	BATTULA DHARANI	BIOTECH
251	231FA04F05	ALA TANUJA	CSE
252	201FA04294	EMANI.DURGA SRINIJA	CSE
253	221LA06009	RAAVI SATYANARAYANA	EEE
254	231LA06003	VADUPU DURGA DINESH	EEE
255	221FA04726	KUMBALA AJAY KUMAR	CSE
256	231FA01123	DUMPA PRANAYA SREE	BIOTECH
257	231FA18094	GANGAVARAPU DILEEP CHANDU	AIANDML
258	231FA04E54	SHALINI KUMARI	CSE
259	211FA04319	DHANASIRI KAVYA	CSE
260	231LA05015	KONDAVEETI ANITHA	ECE
261	221FA04169	RAYAPUDI PRATHYUSHA	CSE
262	231FA03020	MUKOTAMI TADIWA	CIVIL
263	231FA20010	AMARTALURU SRUJEETH GUPTA	CSBS
264	201FA07068	KATIKI KALESWARAMMA	IT
265	221FA04494	KOTHAPALLI VENKATA SAI SANDEEP	CSE
266	231FA04A21	MAGULURI DIVYA SRI	CSE
267	211FJ01075	GUDE HARIKA	BCA
268	231FW01022	INDIRA THATHIVIKA DUPATI	BSC HONS
269	211FW01062	KAMIINENI ADHITHYAA	BSC HONS
270	231FA04970	PENUGONDA SREEKARA VENAKATANAGADURGASAIUDAY	CSE
271	231FA04737	PAGOLU SAMBASIVARAO	CSE
272	211FK01045	KOTA PRIYANKA	BBA
273	221FA05188	MUNIPALLI AVINASH	ECE
274	231FD01013	CHITTE NAGA SAI LAKSHMI	MCA
275	211FA05097	YAMARTHI UMA MAHESWARARAO	ECE
276	231FA04F17	SHAIK SAMEERA	CSE
277	201FA04425	PEDDOJU VENKATA NAGARAJUNA	CSE
278	201FA04289	BONAM PRAVEEN KUMAR	CSE
279	201FA01117	KOYA TEJA	BIOTECH

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280	231FA05304	AMAN KUMAR RAI	ECE
281	221LA06011	SHAIK GULAB SHA	EEE
282	221FJ01043	MOGASATI VENKATA VISHNU MURTHY RAJU	BCA
283	221LA08009	TADIBOYINA SAI BHARATH	MECH
284	231FJ01048	SHAIK SONI	BCA
285	221FA01059	POTHUGANTI GULNAZ MABUNNI	BIOTECH
286	211FA01062	BURRI GANESH	BIOTECH
287	231FA04G81	KOMATIGUNTA YAMUNA	CSE
288	231FA20015	GALI ANIL KUMAR	CSBS
289	221FJ01047	MOHAMMED AHMED KHALID AHMED	BCA
290	221FA18057	BANDLAMUDI MOUNIKA	AIANDML
291	231FC01037	MORLA MAHESH	MBA
292	231FC01023	KOPPURAVURI CHAITANYA SAI RAM	MBA
293	211FA21006	CHILAKA LOKESH JAYA RAO	RA
294	231FA18450	DIVI GOWTHAM CHOWDARY	AIANDML
295	211FA05222	PINNAKA CHAITANYA LAKSHMI	ECE
296	231FA04G12	MADALA VINDYA	CSE
297	211FA04134	RAHUL CHANDRA	CSE
298	221FA19038	BAPANAPALLI ROHAN TEJA	CSECS
299	231FA04F10	JAMMULA BHANU TEJA	CSE
300	201FA02006	PURUSHOTAM KUMAR	CHEM
301	211FA07089	TIRUNAGARI VENKATA GOPI KRISHNA	IT
302	201FA04266	GOGIREDDY SAISRUTHI	CSE
303	221FA19013	SUGGUNA RAMYA SRI	CSECS
304	231FA04722	VENPA VASANTHI	CSE
305	231FA04F47	MOTHE VAISHNAVI	CSE
306	211FA07062	PALADUGU GOPI KRISHNA	IT
307	211FK01115	YEPURI VIJITHA	BBA
308	201FA07049	BAVIRISETTY PRASANNA KUMAR	IT
309	231FA05297	THOTA SRIRAM	ECE
310	231FA04B87	KURRA BHANU SRI	CSE
311	231FJ01052	JANGALA DEEPIKA	BCA
312	221FA04493	VUYYURU HEMANTH	CSE
313	231FA18184	SHAIK ARSH AFROZ	AIANDML
314	231FA04821	CHAKRAVARAM UMA CHANDRA SEKHARA RAJU	CSE
315	221FD01032	KANAKAM SAI PREETHI	MCA
316	211FK01056	MODUGU NITHIN KUMAR	BBA

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317	221FA14075	SHAIK FUZEL AKTHER	BI
318	221FA05015	GAVINI LAVANYA	ECE
319	221FA05199	NAGUMOTHU ROSHINI	ECE
320	231FJ01049	ODIGA BAJI BABU	BCA
321	221LA12014	VADDE MOUNIKA	AG
322	231LA06033	MANNEM BALA ANIL KUMAR	EEE
323	211FA14036	GORANTLA BALA SARASWATHI	BI
324	231FA05234	VEMULA V S S LAKSHMI DURGA SNEHITHA	ECE
325	211FJ01079	MOHAMMAD SUHANA BIBI	BCA
326	221FA23043	DONDETI KOUSHIK REDDY	DS
327	221FA14035	GRANDHI MINUSHA KOWSALYA	BI
328	221FA14085	VUYYURU KESAVI HIMABINDHU	BI
329	221FA18011	MACHARLA LAKSHMI SRINIVASA BHARGAVA SAI	AIANDML
330	231FA07131	MOHAMMAD AMEEN HUSSAIN	IT
331	221FW01130	PODILI SRI SAI GOPI KRISHNA	BSC HONS
332	211FK01003	ANGILIKA KRITHIKA	BBA
333	221FA01099	UPPALA VARSHITHA	BIOTECH
334	221FA15025	MOHAMMED IRFAN	FT
335	231FA20014	SHAIK YASIN BASHA	CSBS
336	231FA05235	PERAVALI SONIKA	ECE
337	231FA05226	YALAVARTHI MADHURI	ECE
338	211FA04374	EEVURI UMESH REDDY	CSE
339	231FA04833	KODALI HEMANJALI	CSE
340	211FM01031	POTTI KOTESWARI	BSC
341	231FW01089	CHIKOTO TAPIWANASHE MUNMARADZI	BSC HONS
342	221FA04227	AYINAPARTHI PURNA PRABHA ROHINI	CSE
343	221FA18052	SANDHU BHARAT SAI	AIANDML
344	221FA04282	TADIKONDA BHAGAT SAI	CSE
345	221FJ01024	GURRAM MISRITHA	BCA
346	211FA04220	CHINTHAPALLI BHAVANA CHOUDARY	CSE
347	221FA18130	JASTI RAMAKRISHNA	AIANDML
348	211FA05073	RENTAPALLA BALAMURALI KRISHNA	ECE
349	221FA05203	GOGIREDDY RAMI REDDY	ECE
350	201FA05005	BOMMAGANTI KEERTHANA	ECE
351	231FA04C12	JASTHI PAVITHRA	CSE
352	221FA07024	BAPATHU SRIRAM REDDY	IT

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353	231FA14071	SHAIK SANA KOUSAR	BI
354	211FA14007	CHINTAM PUNVITH REDDY	BI
355	221FD01062	TALLAM SRI VYSHNAVI	MCA
356	231FA04B95	SHAIK MUZEEF	CSE
357	231FA04835	PALLAPOTHU MOHANA KRISHNA VENI	CSE
358	231FA18299	LELLA GEYA VARDHINI	AIANDML
359	231FA04162	JUJJURI DIVYA	CSE
360	221FA03001	NUKATOTI HANOKU	CIVIL
361	231LA05024	KADADALAPU VENKATA SIVA TEJA	ECE
362	231FK01141	RAVI KUMAR	BBA
363	221FK01094	SUMI KUMARI	BBA
364	221FA14088	PATTIPATI JAI VENKAT	BI
365	221FA23011	PALAPARTHI SHARON SUKEERTHANA	DS
366	231FA01118	SHAIK SHARMILA	BIOTECH
367	231FA04274	GRANDHE THANUJA	CSE
368	231FA07113	APPIDI SAI KUMAR REDDY	IT
369	231FJ01042	MATTA GNANA SAI SWARUP	BCA
370	211FA05161	DODDI VENKATA ANAND DWEEPAK	ECE
371	231FA04382	VUYYURU PAVANA BINDU	CSE
372	211FJ01023	DEVARAPALLI SATHYA PRAKASH	BCA
373	231FA14117	SHAIK TAYYABA TASNEEM	BI
374	221FA07085	YENDLURI SRI LAKSHMI NAGA GREESHMA	IT
375	211FA05289	NEELAM PHANEENDRA SAI	ECE
376	221LA16003	SHAIK ABDUL RAMEEZ	BM
377	201FA19015	YALAMARTHI VENKATESH	CSECS
378	221FA04738	AKSHAY KUMAR	CSE
379	231FC01157	GATTU MESSY ROYAL	MBA
380	221FA04381	MAKHAM BALA LAKSHMI SUJITH	CSE
381	231FA19064	JAHNAVI KAMEPALLI	CSECS
382	231FC01145	TAMMA VINAY KUMAR REDDY	MBA
383	231FA05318	SIBANDA LIBERTY F	ECE
384	211FW01007	KOTIKALAPUDI SUHAS PAUL	BSC HONS
385	221FA01087	SURE LAKSHMI SAI SREE	BIOTECH
386	221FA04696	GUNTANALA VENKATAKRISHNA	CSE
387	231FC01009	SHAIK ABDUL AYAAZ	MBA
388	211FA04475	ANUSHKA	CSE
389	201FA15019	SHAIK AYESHA SULTANA	FT
390	211FA05268	YANGALASETTY SAI KUMAR	ECE

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391	211FA15048	TADI BHAVYA VAISHNAVI	FT
392	221FA04352	BOLLIMUNTHA PREETHI	CSE
393	231FA04561	VASIREDDY AKSHITA NEHA	CSE
394	221FA14069	SHAIK NADEEM	BI
395	221FA04698	PEDDI AMRUTHA NAGA VALLI	CSE
396	211FA08010	BUTHUKURI MANIKANTA REDDY	MECH
397	231FA04118	PATHAN NAZEER	CSE
398	221FA05096	VASIMALLA PRABHAS	ECE
399	211FK01047	LAKKI REDDY AJAY KARTHIK REDDY	BBA
400	201FA14016	CHIRALA SRAVANI	BI
401	221FA04063	VANKA BHUVANA SAI MOUNEENDRA	CSE
402	231FC01087	NALLURI VEERA SIVA NANDEESWARA RAO	MBA
403	231FA18442	NICHENAKOLLA VEERENDRA CHAKRI	AIANDML
404	211FA04400	MULE RAMANJANEYULU	CSE
405	221FA21003	MANCHINA SIVA BHARGAV	RA
406	221FA01017	VELAGA LIKHITHA GAYATHRI	BIOTECH
407	211FA05023	GHANTA VIGNESH	ECE
408	231FA07048	MUPPA KALYANI	IT
409	211FA18053	MUPPALLA SOWMYA	AIANDML
410	231FA06039	MAZANI KUDAKWASHE BLESSED	EEE
411	221FA07120	GOLLAPUDI SHILPA	IT
412	231FA04433	AKKALA HEMANTH REDDY	CSE
413	231FA04263	DANTHULURI LOKESH BABU	CSE
414	201FA14032	CHUNDURU MADHAN	BI
415	221FA04658	MALLADI POOJITHA	CSE
416	211FA18118	MANOJ DASARI	AIANDML
417	231FA04B92	KATUKOTA PREAM KUMAR	CSE
418	211FA04520	DHANUKOTI UMA MAHESH	CSE
419	221FA05131	PUSALA P R V DATHATREYA	ECE
420	231FA01034	KANDI SHIVANI	BIOTECH
421	211FA05301	BHOGIREDDY LAKSHMI MANI TEJA	ECE
422	231FA18155	BOLLIMUNTHA SRI PAVAN	AIANDML
423	221FJ01044	MOHAMED ADAM HASSAN ADAM	BCA
424	211FA04211	SAYED NAGURMEERA	CSE
425	211FA15019	PRANATHI CHANDRIKA PANCHAKARLA	FT
426	221FA18031	KASINDALA CHARAN CHOWDARY	AIANDML
427	221FJ01021	GOLI CHAKRA HARSHA SAI	BCA
428	231FA23112	GOPISETTI HEMASAIDEEPTHI	DS

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429	231FA04067	ADDEPALLI SHANMUKHA PAVAN	CSE
430	211FA06023	CHALLA VENKATA GIRISH	EEE
431	221FW01017	KAJA SREE GAYATHRI	BSC HONS
432	211LA05007	NAGUMOTU ANJANA SRI	ECE
433	231FA04A84	MAKINENI BALA BHOOMIKA	CSE
434	211LA08008	KONDA HARSHANTH	MECH
435	221FA04028	KALLAM SRIDHAR REDDY	CSE
436	211FA07054	KATARU VEERA SHANMUKA	IT
437	211FA19052	GUDE TRIVENI	CSECS
438	201FA01093	UPPUTURI SYAM KUMAR GUPTA	BIOTECH
439	231FA04734	BATCHU NAGA SRI SOWKHYA	CSE
440	211FA05117	GADEKARIKONDA DEVENDRA RAYAL	ECE
441	231FA04534	ANITHA YENNA	CSE
442	221FA06033	RAJNIKANT KUMAR	EEE
443	201FA04277	GONDRALA MANASA PRIYA MOUNIKA	CSE
444	231FA01044	ELETI BENSON	BIOTECH
445	221FA02004	EMMANUEL SIMON MARTIN SEBIT	CHEM
446	231FK01035	SHAIK ABUZAR	BBA
447	191FA05094	KAKARAPARTHI SESA RAO	ECE
448	231FA23021	KATURI BHARGAVI	DS
449	221LA12016	JUVVA RAVALIKA	AG
450	231FA04336	JONNALA BHARGAVI	CSE
451	211LA04005	GOGINENI LAKSHMI SRAVANI	CSE
452	231FK01102	NIDAMANURI SRAVANTHI	BBA
453	231FA04B29	KALATHURI VENKATA ROHITH KUMAR	CSE
454	221FD01015	CHITTIBOINA UPENDRA	MCA
455	221FW01118	NETHULA VENKATA RAVALI	BSC HONS
456	221FA04118	SHIVAM KUMAR	CSE
457	231FA01098	GURAJALA YASWITHA	BIOTECH
458	201FA07076	RAUSHAN KUMAR MAURYA	IT
459	231FA04733	VELPULA BHAGYALAKSHMI	CSE
460	231FA04283	VARRA AVANTHIKA REDDY	CSE
461	211FA04582	VARANASI N V SIVA LAKSHMI NARAYANA	CSE
462	201FA03007	PONNURI MADHU BABU	CIVIL
463	221FA18131	GURRALA RAGHU VARDHAN	AIANDML
464	231FA04E79	ALLA LEELA MANVITHA	CSE
465	221LA03009	DANTHALA ANAND PAL	CIVIL
466	201FA15080	GOPALAPPAGARI UDAY	FT

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467	221FA05081	PAREPALLI LIKITH	ECE
468	221FW01050	KALAM HEMANTH REDDY	BSC HONS
469	221FA07020	JONNADULA DIVYA SRI	IT
470	231FA05116	KOMATIGUNTA YAMUNA	ECE
471	231FM01017	MANDE BHANU TEJA	BSC
472	221FW01115	PULICHARLA PRAVALIKA	BSC HONS
473	231FD01074	LUKKA VENKATA SRI RAM	MCA
474	231FA04G83	YALAVARTHI MONIKA	CSE
475	231FA04001	SANKEPELLI SAMEERA	CSE
476	211FA05157	KOMMINENI NAGA SRI LAKSHMI	ECE
477	211FA04620	GUNDAVARAPU KIRAN MARUTI RANGA SAI SRI	CSE
478	231FA05257	VANUKURI LAKSHMI SIVA PARVATHI	ECE
479	231FA16036	PAGADALA HIMA VYSHNAVI	BM
480	221FA05160	MANTRAPUDI NIKHILA	ECE
481	221FA01138	KROVI VENKATADATTASAI MADHUNANDHANAABHIRAM	BIOTECH
482	221FA18167	NUTHI GEETHANJALI	AIANDML
483	231FC01082	NAGA LAKSHMI RAJUPALEPU	MBA
484	211FA04382	VAJRALA SRI CHANDANA	CSE
485	231FC01025	VEERANKI PAVANI	MBA
486	231FA04C03	BODAPATI MAHESH	CSE
487	231FA04B40	PALEPU M N V SAI RANGA PRABHA	CSE
488	201FA05076	DONTHINENI SIVA KRISHNA	ECE
489	231LA06005	MOHAMMAD ARSHAK	EEE
490	221FA04687	BALUSU DIVYA SNEHITHA	CSE
491	231FA23065	NAGABHYRU KUMAR RAJU	DS
492	231FJ01030	BOINA NAGA MARUTHI KRISHNA	BCA
493	231FA04281	BHIMAVARAPU KAVYA REDDY	CSE
494	231FA01078	RUDRARAJU NEHA SRI	BIOTECH
495	211LA06023	THOTA INDU	EEE
496	221FA04182	AVULA ASRITHA	CSE
497	201FA04208	VIJAYABHARATI K	CSE
498	231FA18226	KROTHAPALLI HARSHA VARDHAN	AIANDML
499	201FA04326	INDALA JYOTHIRMAYEE	CSE
500	221FA05088	VEERANKI SIVA NAGA PHANINDRA	ECE
501	231FC01123	KURRE MOUNIKA	MBA
502	231FA18171	RAJULAPATI NIKHIL	AIANDML
503	221FA05083	SHAIK SAI BASHA	ECE

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504	231FW01033	KOLUSU ABHITHA	BSC HONS
505	201FA04267	GADIYAMULA SIVA GANESWARA RAO	CSE
506	211FA20013	RAJAVARAPU SHIVA TEJA	CSBS
507	231FA04353	ADDANKI GEETIKA	CSE
508	221FA18038	SURE RAGHUNADH REDDY	AIANDML
509	231LA03003	PAYYAVULA SIVA SANKAR	CIVIL
510	231FA04F35	GUNTUPALLI MEGHANA	CSE
511	211FA05065	BHIMINENI HEMA CHANDRA	ECE
512	231FA23105	BATTULA SUSHMITHA CHOWDARY	DS
513	211FA04424	PAMMI SOWJANYA	CSE
514	211FA01002	VANAMA LAKSHMI PRIYANKA	BIOTECH
515	201FA04213	AVULA HARIKA	CSE
516	211FA05145	RAMINENI GAYATHRI SAI	ECE
517	231FA04051	NANDA HARIPRIYA	CSE
518	221FA07032	ALLU MAHESH POTHAN	IT
519	211FA04626	RAM KRIPAL GAURAV	CSE
520	211LA12003	GOBBURI LOKESWARI	AG
521	221FA14065	RAYIDI SRI SAI CHINMAI	BI
522	211FA16006	NANNA SANJANA	BM
523	201FK01051	GOLLA VENU	BBA
524	221FA19048	KAMINENI LEELA TAPASWI	CSECS
525	201FA01120	MALLEMKONDU VENKATA SAI SUMA SRI	BIOTECH
526	201FA04399	PATAN RAHATH ALI KHAN	CSE
527	221FA05117	MIRIYALA UDAYA BHASKAR	ECE
528	221FA07123	KONDRAGANTI LOKESH CHOWDARY	IT
529	231FA18413	GUDE MADHU	AIANDML
530	211FA07020	VENKATA SAI RAHUL VEMULURI	IT
531	221FM01007	POTTURI SONU SAHANA	BSC
532	231FA04C78	BETHAPUDI VINCENT SAMUEL	CSE
533	221FA16036	MODALAVALASA HEMSUNDAR SAIRAM	BM
534	221FA01043	KODURU JAHNAVI SAI DURGA	BIOTECH
535	211FA04002	GORIGE GAYATHRI	CSE
536	221FJ01076	VADDINENI SAI PRAKHYA	BCA
537	211FA06003	KODURU HARIKA NAGA LAKSHMI PRIYA	EEE
538	231FA18015	POTTURI VENKATA SATYA SAI MANI KUMAR	AIANDML
539	201FA04443	JANGALAPALLI HAMSINI	CSE

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540	231FA04974	GUNTI SOMANADH	CSE
541	231FA18369	SURAVARAPU BHAGYA NANDINI	AIANDML
542	231FA04077	SAI SREEJA GUJJIDI	CSE
543	231FA04487	KOLLIPARA BHUVANA VENKATA LAKSHMI ANUJA	CSE
544	221FK01063	PONNEKANTI CHARAN PAVAN	BBA
545	221FA04080	MANNEPALLI RAJESH	CSE
546	211FA05046	MODUGAVARAPU SAI VINEETH	ECE
547	231FA23019	PASAM HARSHITH SAI	DS
548	221FA04070	PASUPULETI NITHYA	CSE
549	211FA04034	LINGINENI LAKSHMI SOWJANYA	CSE
550	221FA04133	VANDANAPU RESHMA SUREKHA	CSE
551	221FC01065	PASUPULETI MANIBABU	MBA
552	201FA01075	KASARLA NARSI REDDY	BIOTECH
553	211FA19026	GURIVINDAPALL BHANU PRAKASH	CSECS
554	231FA04444	POLISSETTY JHANSI PRASANNA LAKSHMI	CSE
555	221FA07139	PERUMALLA SATYA VARUN	IT
556	221FA04736	PRATYUSH KUMAR	CSE
557	221FC01096	SYED KARISHMA KAREEM	MBA
558	231FA05065	GUDUDUR SATHWIK	ECE
559	211FA19031	DEVARPALLI TEJASWI	CSECS
560	211FK01090	SHAIK KHAJA MOINUDDIN	BBA
561	211FA04526	PALLAPU VAMSI	CSE
562	201FA04403	PRABHAT KUMAR	CSE
563	221FA01164	SYED NAZIYA	BIOTECH
564	231FA04169	MOHAMMAD AATHIYA	CSE
565	211FA14010	SYAMALA AKASH	BI
566	211FA04099	PUVVADA SOUMYA	CSE
567	221FA04498	NALLAGORLA BHARGAVI	CSE
568	221FA07038	GODAVARTHI SASI NAGA VENKATA PADMA VASAVI	IT
569	231FK01095	MUTHINENI CHAITANYA	BBA
570	231FA04G63	NITISH KUMAR	CSE
571	201FA01030	MIRIYALA SAHITHI SREE	BIOTECH
572	231FA07122	CHEERABOINA LAKSHMI THIRUPATHAMMA	IT
573	231FA04762	CHILAKALA DURGA SIVA DHANUSH	CSE
574	231FA03013	CHIKWIRI GEORGE TAFARA	CIVIL

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575	211FA01023	BOLISETTY VENKATA LAKSHMI NAGA SUJANA	BIOTECH
576	201FA07062	CHINTAKUNTLA VIVEK REDDY	IT
577	231FA23091	KOYA JHANSI	DS
578	231FA23076	CHAPALA JYOTHIRMAI	DS
579	231FA04270	CHALICHAM DEEPAK CHOWDARY	CSE
580	231FA04B25	NAGABHAIRAVA OSHITHA	CSE
581	231LA12011	KANCHARLA SAHITHI	AG
582	211LA22001	RAJANALA ANKARAO	TT
583	231FA23040	BOYIDI NAGA AKSHAYA	DS
584	201FA04462	ARIMANDA DHEERAJ REDDY	CSE
585	211FA07075	DIRISINALA NAGA VARDHINI	IT
586	231FA18062	PRAGADA KUMAR	AIANDML
587	231FA04426	PERAM SWAPNA SINDHU	CSE
588	231FC01117	MORLA PAVAN	MBA
589	201FA19006	BADE RISHIKA	CSECS
590	231FW01048	PATHAN SAMEENA KHANAM	BSC HONS
591	231FA04F28	PAMIDI PRADEEP MANIKANTA	CSE
592	231FA04620	NAVULURI VEDA SREE	CSE
593	221FA04117	PASUPULETI YESUBABU	CSE
594	211FA05194	VEMULAPATI SUBBA REDDY	ECE
595	221FA19012	DAMARACHARLA GEETHA HARIKA	CSECS
596	221FA01150	NUNNA LIKHITHA SAI	BIOTECH
597	221FA04066	GUDAPATI PUJITHA	CSE
598	231FA04744	GADUPUDI BHAVYA SRI	CSE
599	211FA08006	BODDU HARSHA VARDHAN	MECH
600	221FA04329	PEMMASANI SRI KRISHNA SAI	CSE
601	211LA05044	VEMULAPALLI JEEVANA	ECE
602	231FA19085	KONDRAGUNTA JOSHIT SIMHA	CSECS
603	231FW01039	MANTRIPRAGADA LALITHA BALA TRIPURA SUNDARI	BSC HONS
604	231FA04B65	ALLAMSETTY SHANUMUKH SAI SRI BALAJI	CSE
605	231FA18402	TAVITI JWALA NARASIMHA	AIANDML
606	231FA04793	MOGILI GOPI CHAND	CSE
607	211FA04663	KUNDAN KUMAR JHA	CSE
608	231FA04660	VELPURI SAI MOUSHMI	CSE
609	231FA01020	SHAIK RESHMA	BIOTECH

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610	201FA04160	MADDIREDDY VENKATA SSHA SAI SRIJA	CSE
611	201FA05016	GUDIBANDI AVINASH BHARGAV REDDY	ECE
612	201FA04216	BANDREDDY SAI BASAVIAIAH NAIDU	CSE
613	231FK01066	VADRANAM POORNA BALAJI	BBA
614	211FA12006	ARAPALLI SHRI NISHANTH	AG
615	201FA04456	REDDY RAJESWARI	CSE
616	211LA05010	SURYADEVARA SAI LATHA	ECE
617	221FA04537	MUPPALLA LASYA	CSE
618	211FA04145	RAYAVARAPU NIHARIKA	CSE
619	211FA18132	MENDU SRAVANTHI	AIANDML
620	221FA04073	BELLAMKONDA CHAITANYA NANDINI	CSE
621	221FA05221	MONDITHOKA SOWMYA	ECE
622	221FA18080	KAKUMANU VENKATA LAKSHMI ANJALI TEJASWI	AIANDML
623	231FA04132	PARABATHINA RAHUL BABU	CSE
624	231FA04775	YARAGALLA SUNANDA	CSE
625	211FA04338	TARUN PULIPATI	CSE
626	231FA05261	MURUKUTLA NAMITHA	ECE
627	211FA04040	MANDADHI ALEKHYA	CSE
628	231FA05093	VEDALA PRAGNYA SUMALYA	ECE
629	221FA04542	SANAGAPALLI S V K SIVA NAGA SAI	CSE
630	231FA05067	KOLLIPARA RISHITHA	ECE
631	211FA04542	KATIVARAPU FRANCIS	CSE
632	211FA04201	KAMMA MADHURI	CSE
633	201FA05093	DANTLA SUDHAKAR REDDY	ECE
634	231FK01034	PAKALAPATI NIHARIKA	BBA
635	211LA05012	PEDDAPULI REVANTH KUMAR	ECE
636	201FA04031	SANAKA SHANMUKA SRI HARSHA	CSE
637	231FA18398	GUNA GOUTHAMI	AIANDML
638	201FA17006	MOHAMMAD FAIZAN RAZA	PE
639	201FA04273	BHAVIRISETTI VARA LAKSHMI	CSE
640	201FA04020	MANJEERA BOLISSETTY	CSE
641	211FA04084	MOVVA VENKATESH	CSE
642	221FA04370	EDA SAI NITHIN REDDY	CSE
643	231FA01004	KONDAPATURI PAVITRA	BIOTECH
644	231FA04756	SAKALABHAKTULA KOUSHIK	CSE
645	231FA04945	ARUMALLA SIRIVENNALA	CSE
646	221FA04430	YELLA SAI KRISHNA	CSE

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647	181FA01142	KASULA VENKATA SAI KUMAR RAJA	BIOTECH
648	231FA23027	MALLINA SUSMITHA	DS
649	221FA04724	PITLA MANOHAR	CSE
650	201FA04170	TIRUMALASETTY PAVAN KUMAR	CSE
651	231FA04F45	GORANTLA JAYA VARSHINI	CSE
652	201FK01118	OGIRALA TULASI RAMA KRISHNA CHAITANYA	BBA
653	221FA04198	VUYYURU JYOSHIKA SRI	CSE
654	201FA14002	SURASANI VARUN KUMAR REDDY	BI
655	231FA14007	MYNENI JANANI SRI	BI
656	211FA06033	SUDA MARUTHI GOPI CHAND	EEE
657	221FA04342	P D S V KARTHIKEYA	CSE
658	211FA04271	BATHULA SAI TEJA	CSE
659	221LA05013	THOTA ROHITHSAI	ECE
660	211FA04363	MANDURI SAI ROSHINI	CSE
661	231FA21010	GANAPA ADILAKSHMI	RA
662	211FA04469	SHIVAM AGARWAL	CSE
663	221FW01163	DHARMIREDDI TEJASRI	BSC HONS
664	211LA04001	AKURATHI LAKSHMANA SAGAR	CSE
665	201FA15074	CHINTA JYOTHI JAYAWARDHAN	FT
666	201FA15056	MUTYAM SHARON ROJE	FT
667	221FA01096	PASAPU PRANATHI LAKSHMI	BIOTECH
668	231LA05026	PALLAPOTHU KIREETI	ECE
669	231FA04G76	SHANKAR KUMAR	CSE
670	231FA04951	SANGU VENKATA SAHITHI	CSE
671	231FC01018	PIRATLA RAVI TEJA	MBA
672	211LA03005	VALLEPU DURGA	CIVIL
673	231FA01132	MERAZ ALI	BIOTECH
674	231FW01095	MANGUNDU TANAKA	BSC HONS
675	231FA04989	PAIDIMARRY BHAVYA SRI	CSE
676	221FA04245	NAYUDU SARANYA	CSE
677	231FA14106	BARAMA NAGA PRAGATHI	BI
678	231FC01105	GODAVARTHI V NAGA LAKSHMI SUBHANJALI	MBA
679	231FW01070	BADUGU SWETHA	BSC HONS
680	231FA04801	DASARI HARSHITH	CSE
681	231FA18045	MUPPASANI VENKATA SAMYUKTHA	AIANDML
682	231FA05223	SOMAROUTHU D APARNA	ECE
683	231FA04532	SURAPUREDDY MEGHANA REDDY	CSE

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684	231FA04716	KUNALA JITENDRA LAKSHMI NARAYANA PAVAN	CSE
685	211FA07138	SAI NITHEESH BIKKASANI	IT
686	231FA04064	ARAVAPALLI VENKATA SATHWIK KUMAR	CSE
687	231FA19062	BETHALA SUPRIYA	CSECS
688	231FA14092	DUGGEMPUDI AKHIL REDDY	BI
689	231FA04A45	MUKKU SAI PREETHI	CSE
690	221FA05041	CHATRA SRAVANI	ECE
691	221FA23016	MANGAMURI SASANK	DS
692	221FA06012	SUNKARA EESWARA REDDY	EEE
693	221FC01083	SANNEBOINA MARY USHA SRI	MBA
694	221FA04530	NOMINI BALA PRASANA BOPANA	CSE
695	211FA04295	TOTA KAVYA SREE	CSE
696	231FA04B35	TELLA VISHNU PRIYA	CSE
697	231FA23096	YERUVA VENKATA SATISH KUMAR REDDY	DS
698	231FA04C94	PASUMARTHI SRI PRASANTH	CSE
699	231FC01066	NALLAPATY GOPI NADH	MBA
700	211FA05111	YARLAGADDA RAMYA SHREE	ECE
701	211FA14040	VELLANKI RAGHU RAM	BI
702	231FA14018	YERUVA NEEHA MOHAN REDDY	BI
703	211FA05229	PARIMI SAI TEJA	ECE
704	231FA05158	MEDA CHANIKYA VISHNU	ECE
705	231FA18063	TAVVA JAGADISH	AIANDML
706	211FA08032	KATLA NITIN ASRITH	MECH
707	211FW01051	VEMPARALA NAVYA SRI	BSC HONS
708	221FA04503	GUJJU JOSEPH ANAND KUMAR	CSE
709	231FC01102	MUSKAN KUMARI JAISWAL	MBA
710	231FA04A71	DUNDI SAINADH REDDY	CSE
711	231FK01129	MEESALA REVANTH SAI	BBA
712	221FA04265	TADIKAMALLA SOWMYA SRI	CSE
713	231LA02003	BANDELA UDAYABHASKAR	CHEM
714	201FA15033	KAMBHAMPATI LIKHITHA	FT
715	231FA04C72	RAMINENI KAILASH	CSE
716	221FJ01010	BAPATLA SOMESWAR	BCA
717	231FA06041	NYANZERO SHAME	EEE
718	211FA01018	GOBATTINI CHANDANA	BIOTECH
719	231FA04871	JONNADULA ABHIRAM	CSE

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720	221FA18045	KORRA VENKATA KRISHNA NAGA MANIKANTA	AIANDML
721	231FA14050	TATIPARTHI MADHURA VANI	BI
722	221FA05060	PERAM TANUJA	ECE
723	231FA16054	BURHAN LATEEF	BM
724	231FA18275	MODEM RUTHWIK	AIANDML
725	231FA04521	BOLISETTY V N S K MAHALAKSHMI	CSE
726	221FA04620	TATIREDDY HIMAJA REDDY	CSE
727	221FA04451	PRINCE KUMAR	CSE
728	231FA04007	PALLAPOTHU VINAY	CSE
729	211FW01011	ANUMULA VENKATA RAMANJANEYULU	BSC HONS
730	201FA05067	TANGALLAMUDI RAMA SAI	ECE
731	231FD01064	THALLURI CHANDRA SEKHAR	MCA
732	221FC01125	CHANDOLU MANIDEEP	MBA
733	221FA05156	K V M S LEELA KRISHNA	ECE
734	231FA04288	TIRUKKOVALLURI MONALISA	CSE
735	201FA04175	VEERLA LAKSHMI NEEHARIKA	CSE
736	211LA08017	SHAIK SHAKEEL	MECH
737	231FA16046	JAMM MAYIIK MICHAIR DENG	BM
738	221FA14031	SHRUTI KUMARI	BI
739	231FA18153	MASIMUKKALA SUNIL	AIANDML
740	231FA14083	TALUPULA TANUJA	BI
741	231FA14026	DONTHU SUMA JOSHNA	BI
742	221FA01122	MINNA GRISHMA	BIOTECH
743	231FA05238	KANAMARLAPUDI SRIDHAR ANANTH KUMAR	ECE
744	221FD01021	DUNDI KATHYAYANI REDDY	MCA
745	231FA18435	JAMMULA RUPAK BALAJI	AIANDML
746	231FA14051	CHITTEM KEERTHI	BI
747	231LA22003	KONDLAPALLI GOWTHAM	TT
748	231FA03018	MASVIKENI PRINCE BATSIRAI	CIVIL
749	231FA07151	KANCHARLA SUMEERA	IT
750	211FJ01070	GAJJALA BHARGAV MOULI	BCA
751	221FC01037	CHALLA PRANATHI	MBA
752	231FA04518	MATCHA DHANUSH	CSE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Say No to single use Plastic**

Date:14.10.2023

Venue: Vadlamudi

We the team UEAC of the IT department have conducted an Awareness camp in our adopted school Vadlamudi conducted an event on “Say No to Plastic” to students in different parts of the school locality.

By educating students about the plastic water bottle and its disadvantages of using it. The side effects of plastic include environmental pollution, harm to wildlife, and the persistence of plastic waste, as it takes a long time to break down, contributing to long-lasting ecological impact. Plastic bottles made with certain chemicals can pose health concerns. The chemicals may leach into the water, leading to potential disorders. Bisphenol A (BPA) is a well-known chemical in some plastics and has been linked to hormonal imbalances, reproductive issues, and developmental problems in children and adults. This makes a huge impact on students by knowing the reality of plastic water bottles.

Every step of the program was appreciated by the representatives of the administration. This event created a great stir among the students. The time of the event is from 2 PM to 4 PM. A total of 35 students have participated in the event.



List of Volunteers:

Say No To Single Use Plastic on 14.10.2024			
S.No	Reg.NO	Name	Branch
1	201FA07036	PARI POOJITHA	IT
2	201FA07038	NAMBURI SRI RAM	IT

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3	201FA07084	BOYINA USHA SRI	IT
4	201FA07040	MANNE RUPA CHOWDARY	IT
5	201FA07083	PRAMOD KUMAR	IT
6	201FA07043	YALAMARTHI SHANMUKHA SRI SAI RAMA KRISHNA	IT
7	201FA07082	RANJEET KUMAR DAS	IT
8	201FA07042	GANESUNI SANJANA	IT
9	211FA07001	VEMPATI GAYATHRI	IT
10	211FA07005	VELLANKI YOGITHA	IT
11	211FA07010	NARNE VENKATA GOPI	IT
12	211FA07015	PATHAN RIYAZ KHAN	IT
13	211FA07019	KAKI RAJESH	IT
14	211FA07025	KAMINENI RAVI TEJA	IT
15	211FA07029	SHAIK MOHAMMAD SAMIULLAH	IT
16	211FA07044	SHAIK MOULALI SAHEB	IT
17	211FA07051	YADLAPALLI RESWANTH SAI	IT
18	211FA07065	MANDU LEO SOWNESHWAR REDDY	IT
19	211FA07073	CHEKURI ANJANA	IT
20	221FA07002	KALLI SRAVYA	IT
21	221FA07008	KATRAGADDA JEYENDRA	IT
22	221FA07011	VUKOTI BHARATH VAMSI	IT
23	221FA07016	THOTA SRAVAN KUMAR	IT
24	221FA07021	SHAIK TAHIR	IT
25	221FA07027	GODAVARTHI NAGA PRAVALLIKA	IT
26	221FA07033	MANNAVA GANESH	IT
27	221FA07037	PARASA JAGADEESH GOWD	IT
28	221FA07045	SHAIK KHAJA MOHIDDIN CHISTY	IT
29	221FA07049	THADIVAKA ROHITA MANJU SAI	IT
30	221FA07056	GADIKOYI MANOJ	IT
31	221FA07060	HUSAMELDIN ISMAIL MAHMOUD MAGAN	IT
32	221FA07067	KOLLI AARATHI	IT
33	221FA07074	BATHULA VENKATA NAGA PAVAN JAYANTH	IT
34	221FA07083	AMMISSETTI VENKATA VAMSI KRISHNA	IT
35	221FA07104	PERUMALLA MOHITHA SAI	IT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Traffic Awareness**

Date:14.10.2023

Venue: Vadlamudi

We the team UEAC of the Informational Technology department conducted the event about “Traffic Awareness” on 14 October 2023. The primary goal of traffic awareness is to educate people about safe and responsible behaviour on the road. It aims to inform individuals about traffic rules, encourage compliance with these rules, and promote responsible driving habits. This, in turn, reduces accidents and enhances overall road safety.

The chief organizer, Chief Coordinator, Sec Coordinators and 35 Volunteers of IT participated in the event. Firstly, we all gathered at U block ground floor in the university at 1:50 PM. We started the event by 2:00 PM. We stopped several bikes, cars, and automobiles and informed them about road safety procedures. We additionally provided some statistics about accidents that occurred in India.

After the completion of giving pamphlets and spreading awareness to all, we ended the event by 3:50 PM. We returned to the college by 4:00 PM. All the volunteers, sec Coordinators, Chief Organizer, and Chief Co-ordinator participated in the event very Enthusiastically.



Traffic Awareness at Vadlamudi on 14.10.2023

List of Volunteers:

Traffic Awareness on 14.10.2023			
S.No	Reg.NO	Name	Branch
1	201FA07036	PARI POOJITHA	IT
2	201FA07038	NAMBURI SRI RAM	IT
3	201FA07084	BOYINA USHA SRI	IT
4	201FA07040	MANNE RUPA CHOWDARY	IT
5	201FA07083	PRAMOD KUMAR	IT

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6	201FA07043	YALAMARTHI SHANMUKHA SRI SAI RAMA KRISHNA	IT
7	201FA07082	RANJEET KUMAR DAS	IT
8	201FA07042	GANESUNI SANJANA	IT
9	211FA07001	VEMPATI GAYATHRI	IT
10	211FA07005	VELLANKI YOGITHA	IT
11	211FA07010	NARNE VENKATA GOPI	IT
12	211FA07015	PATHAN RIYAZ KHAN	IT
13	211FA07019	KAKI RAJESH	IT
14	211FA07025	KAMINENI RAVI TEJA	IT
15	211FA07029	SHAIK MOHAMMAD SAMIULLAH	IT
16	211FA07044	SHAIK MOULALI SAHEB	IT
17	211FA07051	YADLAPALLI RESWANTH SAI	IT
18	211FA07065	MANDU LEO SOWNESHWAR REDDY	IT
19	211FA07073	CHEKURI ANJANA	IT
20	221FA07002	KALLI SRAVYA	IT
21	221FA07008	KATRAGADDA JEYENDRA	IT
22	221FA07011	VUKOTI BHARATH VAMSI	IT
23	221FA07016	THOTA SRAVAN KUMAR	IT
24	221FA07021	SHAIK TAHIR	IT
25	221FA07027	GODAVARTHI NAGA PRAVALLIKA	IT
26	221FA07033	MANNAVA GANESH	IT
27	221FA07037	PARASA JAGADEESH GOWD	IT
28	221FA07045	SHAIK KHAJA MOHIDDIN CHISTY	IT
29	221FA07049	THADIVAKA ROHITA MANJU SAI	IT
30	221FA07056	GADIKOYI MANOJ	IT
31	221FA07060	HUSAMELDIN ISMAIL MAHMOUD MAGAN	IT
32	221FA07067	KOLLI AARATHI	IT
33	221FA07074	BATHULA VENKATA NAGA PAVAN JAYANTH	IT
34	221FA07083	AMMISSETTI VENKATA VAMSI KRISHNA	IT
35	221FA07104	PERUMALLA MOHITHA SAI	IT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Distribution of Protection kit to farmers**

Date:16.10.2023

Venue: Vadlamudi

On October 16, 2023, team UEAC organized an event to promote awareness on the effects of fertilizer and pesticide spraying to farmers and helping them by distributing Protection kits.

Our Respective Dignitaries, Dr. T. Ramesh Babu (Dean of Agriculture and Horticulture Sciences), Dr. M.S.S.Rukmini(Dean of Student Affairs) and Dr Vijaybabu Palukuri (UEAC Programming Officer) gave their valuable insights to farmers about the harmfulness of fertilizers and pesticides while spraying without any precautionary measures and also explained the uses of Kit. They also appreciate the students for conducting such a socially helpful event for farmers. The event took place throughout the sprawling Vadlamudi Village. The primary objective of the Distribution of kits was to create awareness about the importance of farmers' health while spraying. The heart of “Kit Distribution” was the active participation of students. 63 students from the Agriculture Engineering Department came forward with zeal to make a positive impact on their Program. They were organized into teams, each assigned specific areas to make a program enthusiastically.

As the Event organization place shines brighter and greener, the spirit of Students will continue to inspire positive change in the days and years to come. The event was done between 2 PM and 5 PM.



Distribution of Protection kit to farmers on 16.10.2023

List of Volunteers:

Distribution of Protection kit to farmers on 16.10.2023			
S. No	Reg No	Name	Branch
1	211FA15045	V. HARSHITHA	AG
2	211FA15036	K. CHARITHA	AG
3	211FA15023	D.SATHWIKI	AG

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4	211FA15042	MD. ROSHAN	AG
5	211FA15050	D.INDRAVATI	AG
6	211FA15015	K. SHARON	AG
7	211FA15043	M. AJAY	AG
8	211FA15022	P.S. SRINIVAS	AG
9	211FA15010	S. GNANENDRA	AG
10	211FA15045	V. HARSHITHA	AG
11	211FA15036	K. CHARITHA	AG
2	211FA15023	D.SATHWIKI	AG
13	211FA15042	MD. ROSHAN	AG
14	211FA15050	D.INDRAVATI	AG
15	211FA15015	K. SHARON	AG
16	211FA15043	M. AJAY	AG
17	211FA15022	P.S. SRINIVAS	AG
18	211FA15010	S. GNANENDRA	AG
19	211FA15045	V. HARSHITHA	AG
20	211FA15036	K. CHARITHA	AG
21	211FA15023	D.SATHWIKI	AG
22	211FA15042	MD. ROSHAN	AG
23	211FA15050	D.INDRAVATI	AG
24	211FA15015	K. SHARON	AG
25	211FA15043	M. AJAY	AG
26	211FA15022	P.S. SRINIVAS	AG
27	211FA15010	S. GNANENDRA	AG
28	211FA15045	V. HARSHITHA	AG
29	211FA15036	K. CHARITHA	AG
30	211FA15023	D.SATHWIKI	AG
31	211FA15042	MD. ROSHAN	AG
32	211FA15050	D.INDRAVATI	AG
33	211FA15015	K. SHARON	AG
34	211FA15043	M. AJAY	AG
35	211FA15022	P.S. SRINIVAS	AG
36	211FA15010	S. GNANENDRA	AG
37	211FA15045	V. HARSHITHA	AG
38	211FA15036	K. CHARITHA	AG
39	211FA15023	D.SATHWIKI	AG
40	211FA15042	MD. ROSHAN	AG
41	211FA15050	D.INDRAVATI	AG
42	211FA15015	K. SHARON	AG

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43	211FA15043	M. AJAY	AG
44	211FA15022	P.S. SRINIVAS	AG
45	211FA15010	S. GNANENDRA	AG
46	211FA15045	V. HARSHITHA	AG
47	211FA15036	K. CHARITHA	AG
48	211FA15023	D.SATHWIKKA	AG
49	211FA15042	MD. ROSHAN	AG
50	211FA15050	D.INDRAVATI	AG
51	211FA15015	K. SHARON	AG
52	211FA15043	M. AJAY	AG
53	211FA15022	P.S. SRINIVAS	AG
54	211FA15010	S. GNANENDRA	AG
55	211FA15045	V. HARSHITHA	AG
56	211FA15036	K. CHARITHA	AG
57	211FA15023	D.SATHWIKKA	AG
58	211FA15042	MD. ROSHAN	AG
59	211FA15050	D.INDRAVATI	AG
60	211FA15015	K. SHARON	AG
61	211FA15043	M. AJAY	AG
62	211FA15022	P.S. SRINIVAS	AG
63	211FA15010	S. GNANENDRA	AG



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University Extension Activity Council (UEAC) Annual Report – 2023-24 Awareness on Rainwater Harvesting

Date:17.10.2023

Venue: Garuvupalem

This activity awareness on rainwater harvesting aims to provide a comprehensive overview on how people can use natural rainwater. Understanding the importance of rainwater harvesting and getting an idea about this is the main concept of this program. This awareness camp was held on October 17, 2023, by NSS members of the biotechnology department of team UEAC.

It has been organized to bring awareness about rainwater harvesting, an innovative technique that can be useful to the farmers and many households. The event was held in Jagarlamudi village from 2.00PM to 4.00PM. The core team members of NSS organized this program along with volunteers and members. This program mainly focuses on how this rainwater harvesting will be helpful to farmers and people for different purposes like irrigation, cooking, washing and cleaning. The objective of this program is to guide the people in the village about how they can make use of this easy natural technique.

The Program commences with assembling every one of the volunteers and members of the biotechnology department, and at 2.00PM the dividing of groups takes place accordingly, and each group has contributed their efforts to make people understand about rainwater harvesting. By 4.00 PM, all 41 volunteers came back to college. Thereby, after a small interaction with the NSS core team and an appreciation for the accomplishment of the event, everyone has been dispersed to their respective classes with a thank-you note.



Awareness on Rain Water harvesting at Sangam Jagarlamudi on 17.10.2023

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List of volunteers:

Awareness on Rain Water harvesting on 17.10.2023			
S. No	Reg. No	Name	Branch
1	201FA01077	K.SAI GANESH SAINATH	BIOTECH
2	211FA01106	VARSHINI.S	BIOTECH
3	211FA01058	SAI HARSHITHA.M	BIOTECH
4	211FA01079	SAI TEJA	BIOTECH
5	211FA01087	RAMYA	BIOTECH
6	211FA01072	DIVYA	BIOTECH
7	211FA01084	NITHYA	BIOTECH
8	211FA01071	AARTHI	BIOTECH
9	221FA14047	GEETIKA	BIOTECH
10	221FA14028	HABIB	BIOTECH
11	221FA14076	SK.ANJUM	BIOTECH
12	221FA14072	AKILA	BIOTECH
13	221FA14075	SK.FUZEL	BIOTECH
14	221FA01050	SK.SAMIMOON	BIOTECH
15	221FA01031	K.PRAVEENA	BIOTECH
16	221FA01030	M.SINDHU PRIYA	BIOTECH
17	221FA01049	SK.SAFIYA	BIOTECH
18	221FA01014	VASUNDHARA	BIOTECH
19	221FA01012	AKHILA	BIOTECH
20	221FA01004	AMRESH KUMAR	BIOTECH
21	221FA01005	PRINCE KUMAR	BIOTECH
22	221FA01027	NITISH KUMAR	BIOTECH
23	221FA01001	SAKLEEN RAZA	BIOTECH
24	221FA01109	M.ASWITHA	BIOTECH
25	221FA01104	J.TRIVENI	BIOTECH
26	221FA01108	MD.FARHEEN	BIOTECH
27	221FA01135	T.BHAVYA	BIOTECH
28	221FA01103	G.SAHITHI	BIOTECH
29	221FA01092	P.GAYATHRI	BIOTECH
30	221FA01130	PRASANTH	BIOTECH
31	221FA01112	HARSHINI	BIOTECH
32	221FA01167	MADHAVI	BIOTECH
33	221FA01183	G.VIGHNA NAGA SANTHASHI	BIOTECH
34	221FA01164	SD.NAGIYA	BIOTECH
35	221FA01202	NIDHI CHOWDARY	BIOTECH



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36	221FA01148	LALITHA DEVI	BIOTECH
37	221FA01163	HARSHAD	BIOTECH
38	221FA01176	SOHIL	BIOTECH
39	221FA01191	DIKSHA	BIOTECH
40	221FA01136	CHANDRIKA	BIOTECH
41	221FA01146	HUSSAIN	BIOTECH



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University Extension Activity Council (UEAC) Annual Report – 2023-24 Self-Defence and Safety Awareness

Date:19.10.2023

Venue: Child Orphanage Home, Bramanakoduru

We, the team UEAC have conducted the event about “Self-defence and safety awareness” on 19-october-2023. The primary goal of this event is to teach the children about their safety awareness and measures to be taken for women in society.

The event commenced with an impressive Taekwondo demonstration, effectively emphasizing the importance of self-defence techniques and building self-confidence. This demonstration captured the attention of both orphans and volunteers, setting a positive tone for the event.

Following the demonstration, participants, especially the orphanage children, were actively involved in participating in the self-defence moves exhibited by the demonstrators. This hands-on experience allowed them to learn and practice essential techniques. An insightful presentation on women’s safety and self-defence was delivered, covering topics such as personal awareness, recognizing potentially dangerous situations, and practical self-defence strategies. The presentation aimed to equip the attendees with knowledge to ensure their personal safety.

The "Awareness on Self-Defence & Safety for Girls" event was a success, achieving its objective of equipping young girls with the knowledge and skills required to enhance their personal safety. The participation of both orphanage children (30) and volunteers (35) added to the effectiveness of the event. A total of 41 volunteers remains committed to promoting the well-being and safety of young individuals in our community.





**University Extension Activity Council (UEAC)
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Self Defence and Safety awareness at Child Orphanage home, Bramanakodur on 19.10.2023

List of Volunteers:

Self-Defence and safety awareness at Child Orphanage home on 19.10.2023			
S. No	Reg. No	Name	Branch
1	211FA04425	B.SANKEERTHAN REDDY	CSE
2	211FA04448	G.AKHILA	CSE
3	211FA04473	V.KRISHNA LIKHITHA	CSE
4	211FA04497	A.THRIVENI	CSE
5	211FA04597	Y.SNEHA LATHA	CSE
6	211FA04600	CH.HIMAJA	CSE
7	211FA04502	K.NIHARIKA	CSE
8	211FA04503	T.NAGA SRIDEVI	CSE
9	211FA04272	K.AKSHAY KUMAR	CSE
10	211FA04243	V.MANIKANTA	CSE
11	211FA04505	G.MADHURI	CSE
12	211FA04522	M.VENKATESH	CSE
13	211FA04390	P.YOGESHWAR	CSE
14	211FA04363	M.ROSHINI	CSE
15	211FA04394	CH.MANOJ	CSE
16	211FA04395	A.KOTI REDDY	CSE
17	211FA04396	SK.SAMIYAN	CSE
18	211FA04355	CH.VIJAY	CSE
19	211FA04371	V.MANJUNADH	CSE
20	211FA04100	S.AKANKSHA	CSE
21	211FA04508	K.MANIKANTA	CSE
22	211FA04537	CHITNENI SINDHU	CSE

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23	211FA04540	DULLA VENKATA SIVA NAGA CHARAN TEJA YADAV	CSE
24	211FA04543	GALI SAI VIJAY	CSE
25	211FA04549	VANGIPURAPU VISWANATH	CSE
26	211FA04552	CHAGANTI SIRI VIGNA REDDY	CSE
27	211FA04557	MANURU L S S MANOHARA CHANDRACOS	CSE
28	211FA04544	VEMPATIVEERAMANIKANTA	CSE
29	211FA04560	SUVARNA LAKSHMI ARUMALLA	CSE
30	211FA04563	APPIDI SAI KIRAN REDDY	CSE
31	211FA04568	SANTOSH KUMAR	CSE
32	211FA04571	ABBURI SRI LAKSHMI	CSE
33	211FA04576	JAHNAVI DABBAKUTI	CSE
34	211FA04582	VARANASI N V SIVA LAKSHMI NARAYANA	CSE
35	211FA04586	YAKKANTI SAI VARSHITHA	CSE
36	211FA04598	DUDLA DASARADHA RAMI REDDY	CSE
37	211FA04607	KONDA MANIKANTA	CSE
38	211FA04612	CHERUKURI SOWNDARYAVATHI	CSE
39	211FA04617	BIJAM VENKATA PAVAN KUMAR REDDY	CSE
40	211FA04628	RAYI HARIKA	CSE
41	211FA04634	MOGALLURI VENKATA SIDDARDHA	CSE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Yoga**

Date:19.10.2023

Venue: Child Orphanage Home, Bramanakoduru

The Department of S&H (B.Sc. Computers) organized an event on "Awareness on Yoga in Brahmanakoduru. The event aimed to empower young girls with the knowledge and skills necessary to ensure their personal health care.

The event commenced from 2 PM to 4 PM with an impressive yoga demonstration, effectively emphasizing the importance of yoga techniques and building self-confidence. This demonstration captured the attention of both orphans and volunteers, setting a positive tone for the event. Following the demonstration, participants, especially the orphanage children, were actively involved in practicing the yoga moves exhibited by the demonstrators. This hands-on experience allowed them to learn and practice essential techniques. Following the interactive practice session, the volunteers delivered some advantages of yoga and also some health tips to the orphans.

The “Awareness on Yoga” event was a success, achieving its objective of equipping young girls with the knowledge and skills required to enhance their personal health. The participation of both orphanage children and volunteers of 35 has added to the effectiveness of the event.



Yoga Awareness at Child Orphanage Home, Brahmanakodur on 19.10.2023

List of Volunteers:

Yoga Awareness at Child Orphanage Home, Bramanakodur on 19.10.2023			
S. No	Reg No	Name	Branch
1	221FM01003	D. KOUNDIYA	BSC
2	221FM01005	K.VEDANT	BSC
3	221FM01006	M. GEETHIKA	BSC
4	221FM01007	P. SAHANA	BSC

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5	221FM01008	U. SIVA PRASAD	BSC
6	221FM01009	Y. HARIKA	BSC
7	221FM01010	SK. TANVEER	BSC
8	221FM01011	N. VENKAT GANESH	BSC
9	221FM01012	M. GEETA KRISHNA	BSC
10	221FM01013	E. AKHILA	BSC
11	221FM01015	VENNKATA SAI	BSC
12	221FM01016	K. RAJ KUMAR	BSC
13	221FM01021	SAI KUMAR	BSC
14	221FM01029	P. SRAVYA	BSC
15	221FM01044	D.O.V.S CHAITANYA	BSC
16	221FM01058	E. DIVAKAR REDDY	BSC
17	211FM01001	AMARA VENKATA SESA VEDASRITH SRIKAR	BSC
18	211FM01002	AMMISSETTY PAVAN SAI KRISHNA	BSC
19	211FM01007	BOLLA SRAVYA	BSC
20	211FM01012	GUDAPATI MOUNIKA LAKSHMI DURGA	BSC
21	211FM01015	KANNEGANTI VENKAT SAI	BSC
22	211FM01019	KOTTE VENKATA VEERA VARA PRASAD	BSC
23	211FM01026	MUVVALA NAGA SATYA MANIKANTA	BSC
24	211FM01032	SANAGAPALLI SAI ALEKHYA	BSC
25	211FM01035	SHAIK ABDUL KHADAR JILANI	BSC
26	211FM01039	VAKA G S V SUNDARA RAMOJI RAO	BSC
27	211FM01044	DARAPUNENI OM VENKATA SAI CHAITANYA	BSC
28	211FM01047	KOTA UDAY AKHIL	BSC
29	211FM01049	SHAIK AFRIN	BSC
30	211FM01051	SHAIK NURUDDIN BASHA	BSC
31	211FM01054	SHAIK MUHAMMAD TAZEEM AHAMED	BSC
32	211FM01033	SANAM PRAVALLIKA	BSC
33	211FM01008	CHINTHABATHINI BHAVANA	BSC
34	211FM01005	BANDARU CHARAN SAI	BSC
35	211FM01056	BINGI DEEPAK	BSC



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Old Cloth Distribution**

Date:19.10.2023

Venue: Child Orphanage Home, Bramanakodur

The Department of S&H (BSc. Computers) organized an event on “Old Cloth Distribution” in Brahmanakoduru. The event aimed to donate old cloth continuing to help children in need.

The event commenced with an impressive distribute. This captured the attention of both orphans and volunteers, setting a positive tone for the event. Following the demonstration, participants, especially the orphanage children, were actively involved. Following the interactive practice session, the volunteers delivered old clothes and some health tips to the orphans. The “old cloth distribution "event was a success. The participation of both orphanage children and volunteers of 16 has added to the effectiveness of the event.

The Department of S&H (BSC.COMPUTERS), along with its partners, remains committed to conducting such events to promote the well-being and health of young individuals in our community. The event was held from 2PM to 4PM. A total of 35 students participated in this event.



Old Cloth Distribution at Child Orphanage Home, Bramanakodur on 19.10.2023

List of Volunteers:

Old Cloth Distribution at Child Orphanage Home, Bramanakodur on 19.10.2023			
S. No	Reg No	Name	Branch
1	221FM01003	D. KOUNDIYA	BSC
2	221FM01005	K.VEDANT	BSC
3	221FM01006	M. GEETHIKA	BSC

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Annual Report – 2023-24**

4	221FM01007	P. SAHANA	BSC
5	221FM01008	U. SIVA PRASAD	BSC
6	221FM01009	Y. HARIKA	BSC
7	221FM01010	SK. TANVEER	BSC
8	221FM01011	N. VENKAT GANESH	BSC
9	221FM01012	M. GEETA KRISHNA	BSC
10	221FM01013	E. AKHILA	BSC
11	221FM01015	VENNKATA SAI	BSC
12	221FM01016	K. RAJ KUMAR	BSC
13	221FM01021	SAI KUMAR	BSC
14	221FM01029	P. SRAVYA	BSC
15	221FM01044	D.O.V.S CHAITANYA	BSC
16	221FM01058	E. DIVAKAR REDDY	BSC
17	211FM01001	AMARA VENKATA SESA VEDASRITH SRIKAR	BSC
18	211FM01002	AMMISSETTY PAVAN SAI KRISHNA	BSC
19	211FM01007	BOLLA SRAVYA	BSC
20	211FM01012	GUDAPATI MOUNIKA LAKSHMI DURGA	BSC
21	211FM01015	KANNEGANTI VENKAT SAI	BSC
22	211FM01019	KOTTE VENKATA VEERA VARA PRASAD	BSC
23	211FM01026	MUVVALA NAGA SATYA MANIKANTA	BSC
24	211FM01032	SANAGAPALLI SAI ALEKHYA	BSC
25	211FM01035	SHAIK ABDUL KHADAR JILANI	BSC
26	211FM01039	VAKA G S V SUNDARA RAMOJI RAO	BSC
27	211FM01044	DARAPUNENI OM VENKATA SAI CHAITANYA	BSC
28	211FM01047	KOTA UDAY AKHIL	BSC
29	211FM01049	SHAIK AFRIN	BSC
30	211FM01051	SHAIK NURUDDIN BASHA	BSC
31	211FM01054	SHAIK MUHAMMAD TAZEEM AHAMED	BSC
32	211FM01033	SANAM PRAVALLIKA	BSC
33	211FM01008	CHINTHABATHINI BHAVANA	BSC
34	211FM01005	BANDARU CHARAN SAI	BSC
35	211FM01056	BINGI DEEPAK	BSC

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**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Maintenance of Machinery**

Date: 20.10.2023

Venue: Suddapalli

On 20th October 2023, the Department of Mechanical Engineering at Vignans University organized a significant awareness event on maintenance of machinery at Suddapalli. The event focused on "Awareness on Maintenance of Machinery."

The event, coordinated by Team UEAC, was aimed at promoting knowledge and understanding of these critical issues within the community. In the end, the knowledge gained from the event can have a positive and lasting impact on the community, promoting a safer and healthier environment for all.

Overall, 32 volunteers participated in the event, which has sown the seeds of awareness, knowledge, and action on the maintenance of machinery, which we will yield lasting benefits for both the participants and the community they belong to.

**List of volunteers:**

Awareness on Maintenance of Machinery on 20.10.2023			
S. No	Reg. No	Name	Branch
1	201FA08001	GARIKAPATI RAKESH	MECH
2	201FA08004	POLISSETTY MOHAN SAI SANKAR	MECH
3	201FA08009	VIKASH KUMAR	MECH
4	211FA08002	VEERI MANIKANTA GOWD	MECH
5	211FA08007	BATTULA KALYAN RAM	MECH
6	211FA08012	KATTA CHARAN	MECH
7	211FA08016	SHAIK ULFATH	MECH
8	211FA08019	SHAIK MOULALI	MECH

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9	211FA08024	JONNAKUTI BHARATH TEJA	MECH
10	211FA08027	EVURU DOLA SAI CHAITANYA	MECH
11	211FA08030	TAMMISETTI MURALI GOPALA KRISHNA	MECH
12	211fa08032	KATLA NITIN ASRITH	MECH
13	211fa08031	GAJULA VENKAT	MECH
14	211LA08003	PIKKALKAR KRISHNA	MECH
15	211LA08005	GARIKAPATI SAI SAKETH BALU	MECH
16	211LA08008	KONDA HARSHANTH	MECH
17	211LA08011	TUNUGUNTLA VENKATA DEVENDRA GUPTHA	MECH
18	211LA08013	MANDA VENKATA SIVA SAI	MECH
19	211LA08017	SHAIK SHAKEEL	MECH
20	211LA08021	FAZRUL REHMAN	MECH
21	211LA08023	MUNGARA RAGHAVENDRA LOKESH	MECH
22	221FA08001	KUNCHALA RAKESH	MECH
23	221FA08002	THOTAKURA AMITH CHANDRA	MECH
24	221FA08004	EZELDIN ESHAG EISA MOHAMED	MECH
25	221FA08005	MONZER AHMED KHALID AHMED	MECH
26	221FA08008	HASSAN MAHADI ABDALLAH BABEKER	MECH
27	221FA08009	PATAN JAMEEL KHAN	MECH
28	221LA08020	ABHIJEET KUMAR SONI	MECH
29	221LA08027	PERUMALLA PRAVEEN	MECH
30	221LA08029	KOTTE GOPICHAND	MECH
31	221LA08017	CHAND DINESH	MECH
32	221LA08020	ABHIJEET KUMAR SONI	MECH

Awareness on Soil Pollution



**University Extension Activity Council (UEAC)
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Date:20.10.2023

Venue: Suddapalli Village

We the team of UEAC of Department Mechanical Engineering had organized an event in Suddapalli village. The event is “Awareness on Soil pollution”. The main aim of this event is to create awareness among village people about soil pollution. The event was attended by 32 students, and they were highly enthusiastic in making it a big success.

The awareness on soil pollution was given to all the people, and they were informed about the causes of soil pollution which affects the plants and the environment. It is a serious environmental concern since it harbours many health hazards. For example, exposure to soil containing high concentrations of benzene increases the risk of contracting leukaemia.

Awareness event on soil pollution and increases knowledge among the villagers about the causes of soil pollution, preventive measures to reduce the soil pollution and the loss caused by soil pollution. And the knowledge of creating a good environment was also shared with the people by visiting their houses. The event was held from 2 PM to 4 PM.



Awareness on Soil pollution at Suddapalli village on 20.10.2023

List of Volunteers:

Awareness on Soil pollution on 20.10.2023			
S.No	Reg.No	Name	Branch
1	201FA08001	GARIKAPATI RAKESH	MECH
2	201FA08004	POLISSETTY MOHAN SAI SANKAR	MECH
3	201FA08009	VIKASH KUMAR	MECH
4	211FA08002	VEERI MANIKANTA GOWD	MECH
5	211FA08007	BATTULA KALYAN RAM	MECH
6	211FA08012	KATTA CHARAN	MECH
7	211FA08016	SHAIK ULFATH	MECH

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8	211FA08019	SHAIK MOULALI	MECH
9	211FA08024	JONNAKUTI BHARATH TEJA	MECH
10	211FA08027	EVURU DOLA SAI CHAITANYA	MECH
11	211FA08030	TAMMISSETTI MURALI GOPALA KRISHNA	MECH
12	211fa08032	KATLA NITIN ASRITH	MECH
13	211fa08031	GAJULA VENKAT	MECH
14	211LA08003	PIKKALKAR KRISHNA	MECH
15	211LA08005	GARIKAPATI SAI SAKETH BALU	MECH
16	211LA08008	KONDA HARSHANTH	MECH
17	211LA08011	TUNUGUNTLA VENKATA DEVENDRA GUPTHA	MECH
18	211LA08013	MANDA VENKATA SIVA SAI	MECH
19	211LA08017	SHAIK SHAKEEL	MECH
20	211LA08021	FAZRUL REHMAN	MECH
21	211LA08023	MUNGARA RAGHAVENDRA LOKESH	MECH
22	221FA08001	KUNCHALA RAKESH	MECH
23	221FA08002	THOTAKURA AMITH CHANDRA	MECH
24	221FA08004	EZELDIN ESHAG EISA MOHAMED	MECH
25	221FA08005	MONZER AHMED KHALID AHMED	MECH
26	221FA08008	HASSAN MAHADI ABDALLAH BABEKER	MECH
27	221FA08009	PATAN JAMEEL KHAN	MECH
28	221LA08020	ABHIJEET KUMAR SONI	MECH
29	221LA08027	PERUMALLA PRAVEEN	MECH
30	221LA08029	KOTTE GOPICHAND	MECH
31	221LA08017	CHAND DINESH	MECH
32	221LA08020	ABHIJEET KUMAR SONI	MECH

Awareness on Beneficial Foods



**University Extension Activity Council (UEAC)
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Date: 20.10.2023

Venue: Vejudla

On 20th October 2023, in the Vejudla village, the team UEAC conducted Awareness on beneficial food items in the locality of vejudla village. A total of 65 students have participated in this event, and they are divided into 7 teams, and they selected different localities to give awareness on beneficial food items to the people. Every team visited their given localities, and they promoted awareness on beneficial food items among village people that can greatly improve their overall health. Depending on age groups, participants address different food items and uses. From the age group of children to old age people. Anyway, participants were highly enthusiastic to make it a big success. To conclude this program on raising awareness about beneficial food items tailored to different age groups in our village, let us remember that our journey to better health and well-being is a shared one. We are sowing the seeds of a healthier, happier future for ourselves and generations to come.

An awareness event on beneficial food items typically includes increased knowledge among participants about the nutritional value of certain foods, their health benefits, and how to incorporate them into their diet. It can lead to healthier eating habits, improved overall health, and potentially a reduction in certain health issues associated with poor dietary choices.



Awareness on Beneficial Foods at Vejudla on 20.10.2023

List of Volunteers:

Awareness on Beneficial Foods on 20.10.2023			
S.NO	Reg. No	Name	Branch
1	221FA01005	PRINCE KUMAR	BIOTECH
2	221FA01008	RITHIKA SURAPANENI	BIOTECH
3	221FA01012	YADALA AKHILA	BIOTECH
4	221FA01016	MAMILLAPALLI TEJASWI	BIOTECH
5	221FA01018	GANDHAM MAYUKHA SAI	BIOTECH
6	221FA01023	TALLA SWATHI	BIOTECH

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7	221FA01031	RAVEENA KATURI	BIOTECH
8	221FA01033	SHAIK RIZWAN AHMAD	BIOTECH
9	221FA01037	THUMMA JASWANTHI	BIOTECH
10	221FA01042	VERAPARAJU VENKATA SOWMYA LAKSHMI	BIOTECH
11	221FA01048	KOPPARTHI THARUNMAI	BIOTECH
12	221FA01052	NANDAGARI MEGHANA	BIOTECH
13	221FA01057	JAGARLAMUDI SOHITH CHAITANYA	BIOTECH
14	221FA01069	SETTI ANANYA	BIOTECH
15	221FA01074	MUDRABOYINA JAGADEESH	BIOTECH
16	221FA01081	NAROTTAM KUMAR	BIOTECH
17	221FA01090	MOKHAMATAM SRAVANTHI	BIOTECH
18	211FA14003	KAKUMANU TEJASWINI	BI
19	211FA14007	CHINTAM PUNVITH REDDY	BI
20	211FA14010	SYAMALA AKASH	BI
21	211FA14015	LAVU KALYAN CHAKRAVARTHY	BI
22	211FA14019	PAGADALA PREMITHA	BI
23	211FA14026	VALLAMKONDA LAKSHMI KOMALI	BI
24	211FA14031	G DHANUSHA	BI
25	211FA14037	DODDA SUBHASH CHANDRA BOSE	BI
26	211FA14045	KOTHAREDDY PRANAVI	BI
27	211FA14052	MEDA NAGA ANJANA GOPINATH	BI
28	211FA14059	JAGARLAMUDI AMMANNI	BI
29	211FA14064	V HARI NAIK	BI
30	221FA01009	CHERUKURI CHARAN KUMAR	BIOTECH
31	221FA01014	TENALI VASUNDARA	BIOTECH
32	221FA01005	PRINCE KUMAR	BIOTECH
33	221FA01013	MADDINA RUPA	BIOTECH
34	221FA01017	VELAGA LIKHITHA GAYATHRI	BIOTECH
35	221FA01024	KOPPIREDDY NAGA SAIRAM	BIOTECH
36	221FA01029	AASHRITHA MAROUTHU	BIOTECH
37	221FA01032	SHAMILA AFREEN	BIOTECH
38	221FA01037	THUMMA JASWANTHI	BIOTECH
39	221FA01047	BIKKI NAGA VYSHNAVI	BIOTECH
40	221FA01055	GUNDEPUDI KARTHIKEYA	BIOTECH
41	221FA01071	MEENISSETTI GEETA KRISHNAMANAIDU	BIOTECH
42	221FA01079	ARJULA SRI SURYA KANTHI	BIOTECH
43	221FA01082	MATTA DOLA SAI NAGA DIVYA SRI	BIOTECH
44	221FA01083	POLAROWTHU SRI SWARNA LAKSHMI	BIOTECH
45	221FA01079	ARJULA SRI SURYA KANTHI	BIOTECH
46	221FA01094	VITTA DAKSHAYANI	BIOTECH

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47	221FA01099	UPPALA VARSHITHA	BIOTECH
48	221FA01119	THUNUGUNTLA HARI NAGA KAVYA SRI	BIOTECH
49	221FA01137	KAKANURU ARUN KUMAR REDDY	BIOTECH
50	221FA01152	PUPPALA MOKSHITHA	BIOTECH
51	221FA14035	GRANDHI MINUSHA KOWSALYA	BI
52	221FA14042	JAINI VASAVI GAYATHRI	BI
53	221FA14049	RAVURI YASASWI	BI
54	221FA14058	KARUTURI SAI SATYA KRISHNA	BI
55	221FA14062	SHAIK REHMAN	BI
56	221FA14067	A.JYOTHI SREE	BI
57	221FA14073	AVULA VENKATA MEGHANA	BI
58	221FA14078	JAJULA PRANATHI MALYA	BI
59	221FA14082	POTTURI DURGA SARIKA	BI
60	221FA14090	VIPPARLA PUSHPA VALLI	BI
61	221FA14096	RUHANI GUPTA	BI
62	221FA14104	NEKKALAPU JHANSI CHOWDARY	BI
63	221FA14109	PALETI JAYAM JAMES	BI
64	221FA14114	NALI NIKHITHA	BI
65	221FA14117	BHASKARANI SHRADDHA	BI

Distributing Chandrayaan-3 Mementos to Government Schools

Date:23.10.2023



University Extension Activity Council (UEAC) Annual Report – 2023-24

Venue: VFSTR

Chandrayaan-3 is developed by the Indian Space Research Organization (ISRO). India is the world's first country to land a moon mission on its South Pole.

Chandrayaan-3 launched from the Satish Dhawan Space Centre in Sriharikota Range (SDSC SHAR), India, on 14 July 2023 on a mission to demonstrate new technologies and to achieve India's first soft landing on another celestial body. It is the third Indian lunar exploration mission under the Indian Space Research Organization's (ISRO) Chandrayaan program. It consists of a lander named Vikram and a rover named Pragyan, similar to those of the Chandrayaan-2 mission. The propulsion module carried the lander and rover configuration to lunar orbit in preparation for a powered descent by the lander.

Through ISRO's Chandrayaan-3 mission's success, India will become the only country to land its spacecraft on the South Pole region of the Moon. India will become the second country, along with China, to have an operating rover on the moon. To support this historical mission, Vignan University has taken up a mission to distribute Chandrayaan-3 Mementos to Government Schools on October 23, 2023.



Distributing Chandrayaan-3 Mementos to Government Schools on 23.10.2023

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List of Volunteers:

Distributing Chandrayaan-3 Mementos to Government Schools on 23.10.2023			
S. No	Reg. No	Name of the Student	Branch
1	201FA04370	ELCHURI MAHESH BABU	CSE
2	221FA23033	GOLLAPUDI REVATHI	DS
3	221FC01032	THUPURI LAKSHMI KANTH	MBA
4	211FA01092	PINNI SARATH VENKATESH	BIOTECH
5	211FA01120	BUDATI BHAGYA SRI	BIOTECH
6	221FA04628	ALLAPARTHI REVANTH	CSE
7	231LA19002	SHAIK MOSEN AHAMAD	CSECS
8	231FA04785	MANUKONDA CHANDRA SEKHAR REDDY	CSE
9	231FA04632	RAVIPATI HANEESH MADHUR	CSE
10	231FA04F01	KONDAMADUGULA CHETAN REDDY	CSE
11	221FA01054	MANDRU TEJA SRI	BIOTECH
12	231FA01128	MEKALA KEERTHIKA	BIOTECH
13	221FA04217	KAKANI TEJA SREE	CSE
14	231FA01027	BURRI SAI MAHITHA	BIOTECH
15	231FA04G91	VULTA LAKSHMINARAYANA	CSE
16	231FA18221	MODUKURU MANOJ KUMAR	AIANDML
17	211FA03006	DASARI SAI VISHNU BABU	CIVIL
18	231FA21009	SHAIK SUBHANI SOHAIL	RA
19	221FA14008	NALLAMOTHU SRIVALLI	BI
20	231FA05024	BHUMIREDDY VYSHNAVI	ECE
21	231FA04D32	DEMULA JAYASREE	CSE
22	231FA04495	CHILUKURI UJWALA SRINIVAS	CSE
23	221FA06024	MOHAMMAD MAHABUBE SUNAYN	EEE
24	201FA14039	KONDA MEENAKSHI RISHITHA	BI
25	231FA18462	PERUMALLA YOGI VENKATASAI LAKSHMI HARSHITHA	AIANDML
26	211FA04648	SOURAV KUMAR	CSE
27	231FC01027	ANNEM HARSHINI	MBA
28	211FA04405	GUNTUPALLI LOKESH CHANDRA	CSE
29	231FA16019	ANNAPUREDDY RAJITHA	BM
30	231FD01023	KANDUKURI SUSHMA	MCA
31	231FA04E33	SHAIK FARHATH AISHA	CSE
32	231FA04634	LINGAMANENI S SS VIJAYENDRA CHOWDARY	CSE
33	211FA19038	TAMMINENI LAKSHMI NARASIMHA	CSECS
34	211FA01066	JALAPATI ABHIGNA LAKSHMI PRIYA	BIOTECH
35	231FA18338	NAGALINGAM DURGA PRASAD	AIANDML
36	211FM01014	KANCHI BHARGAVI	BSC

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37	231FC01151	DAGGUPATI AYYAPPA	MBA
38	231FA01107	NARRA DEEPIKA	BIOTECH
39	211FJ01010	BALARAM GOPI YALAVARTHI	BCA
40	221LA08026	THAMANAM PRADEEP BABU	MECH
41	231LA08016	SHIMANTA KASHYAP BORAH	MECH
42	221FA18015	GUNTUR KAVYA	AIANDML
43	221FA07125	VELUVOLU JITENDRA NADH CHOWDARY	IT
44	201FA04107	MAKKENA HARSHITHA	CSE
45	231FJ01011	SHAIK JIYAUDDIN	BCA
46	211FA05188	MADALA VENKATA KAVYA SRI	ECE
47	231FA16050	YANDURI LAKSHMI KESAVA RUPESH	BM
48	201FA05090	YARRAMANAYUNI DILEEP	ECE
49	231FM01005	CHIGURUPATI SNEHA SREE	BSC
50	231FA05240	GUDA NAGA SAI ASHOK	ECE
51	231FM01018	SHAIK KHAJA MOHIDDIN	BSC
52	221FA01006	BHUKKE VIDHYA VARSHINI	BIOTECH
53	231FA04003	SHAIK MUTAHHAR	CSE
54	201FA15007	SAI GANESH UPPUTURI	FT
55	231FA23024	P VENKATA JAYA MANIKANTA	DS
56	221FA05209	L S B ADITHYA ABBARAJU	ECE
57	211FK01149	PINJARI SAMEERA	BBA
58	231FA18454	KONDAVEETI VISHWANTH SAI PHANI	AIANDML
59	231FC01148	KOWTHARAPU PAVAN KUMAR	MBA
60	201FA14025	NANDYALA VENI	BI
61	201FA01071	TADUVAI TRIVIKRAM SRI HARI	BIOTECH
62	231FA04C17	SREEPATI ROHIT	CSE
63	231FA23036	THIRIVEEDHI AMULYA	DS
64	231FA06017	SHAIK FARZANA BEGUM	EEE
65	211FA07038	NAMBURU NAGA THANMAIE	IT
66	211FW01102	NARUKULLA RAMARAO	BSC HONS
67	221FA07143	TIRUVAIPATI YAKSHITHA	IT
68	221FK01091	NITISH KUMAR SINGH	BBA
69	221FA23038	THANUBUDDU NAGA GOWTHAMI	DS
70	231FA04F04	MAMILLAPALLI CHARAN TEJA	CSE
71	221FA04336	KATLA ANKITHA	CSE
72	211FA04318	KATURI KAMALA DARSHINI	CSE
73	211FA15015	KARRA SHARON ROSE	FT
74	201FA04009	GRANDHE SAI RAGHU VAMSI	CSE
75	211FA04530	ALAPATI SAI VARDHAN	CSE
76	211FA04430	SYED MASOOD MOHIDDIN	CSE
77	211FA04543	GALI SAI VIJAY	CSE
78	231FA20035	KAVURI GOPI CHAND	CSBS

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79	221FA16001	VIYYAPU SHREYA SREE	BM
80	211FW01065	GORLE TARUN SAI	BSC HONS
81	231FA14022	SHAIK SANA YASMEEN	BI
82	221FA19039	KATARU TARUN KUMAR REDDY	CSECS
83	221FK01051	MUNTHA BHARGAV	BBA
84	231FA04B27	THOKA RAJ KUMAR	CSE
85	231FA14118	GOLI HRUDAY KIRAN	BI
86	221FA01153	GOUTUKATLA VENKAT	BIOTECH
87	231FA16009	SUNKARA DINESH KUMAR REDDY	BM
88	221LA04006	DHARANIKOTA TEJA SWAROOP	CSE
89	211FA04655	ANKIT KUMAR	CSE
90	201FA02010	SHAIK SHAMSHEER	CHEM
91	231FA04349	TIRUMALASHETTI GAYATHRI	CSE
92	211FA05072	MARAMREDDY SUMANTHREDDY	ECE
93	221FA07127	JONNALA LAKSHMI NARASIMHA REDDY	IT
94	211FK01127	ADAPA BHUVANESHWAR	BBA
95	221FA05212	BODDAPATI MANISHA REDDY	ECE

Session on Teen Counselling

Date: 06.11.2023

Venue: Vignan Junior college Vadlamudi

Team UEAC conducted an event to create awareness on mental health, emotional well-being, and drug eradication, and make them understand their importance by shaping themselves into assets of the country.

They will get to know how the individual should react to the situation and also stabilize themselves as per the situation and dos or don'ts of their current age by considering a few demographic conditions as per societal change.

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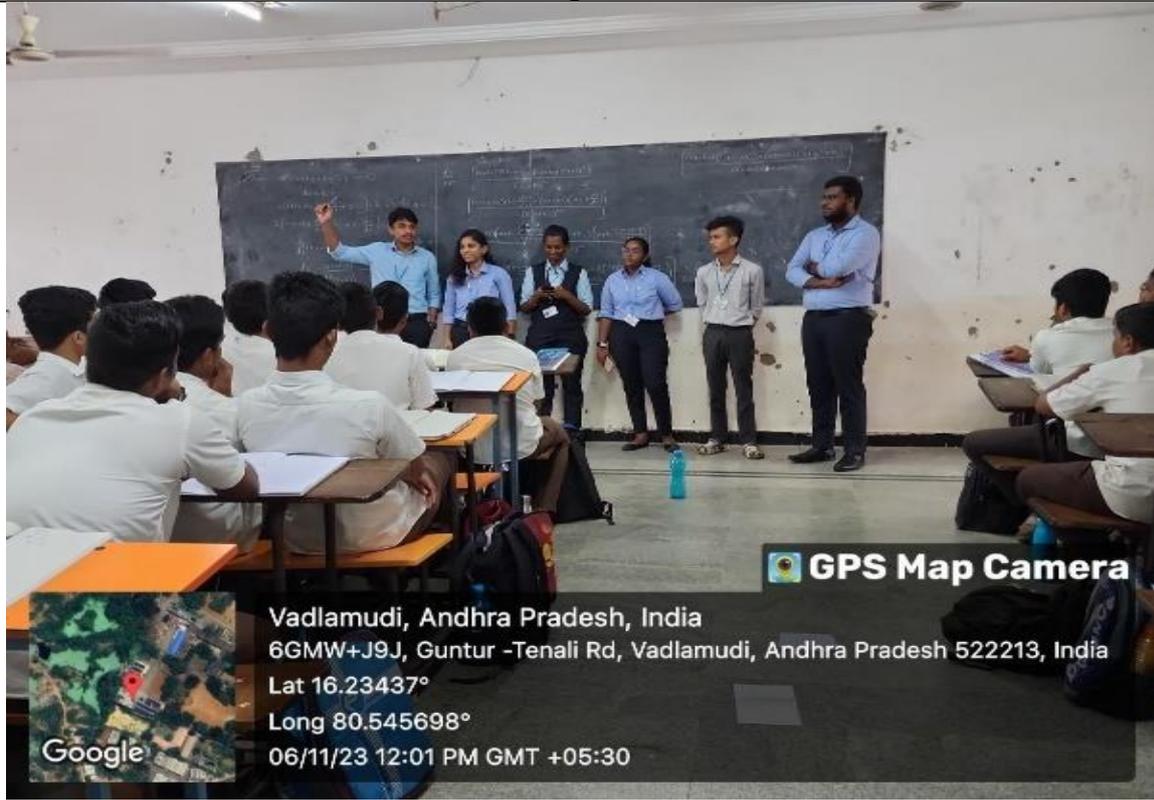
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Conducting a Session On Teen Counseling on 06.11.2023

List of volunteers:

Session On Teen Counseling on 06.11.2023			
S.No	Reg.No	Name	Branch
1	221FC01005	KOTTE GOPIKRISHNA	MBA
2	221FC01010	INDRAPRIYA DHARASHINI MEDAGAM	MBA
3	221FC01017	GADAMSETTY VAMSI KUMAR	MBA
4	221FC01024	KOLLA SNEHA	MBA
5	221FC01029	KURAPARI KANAKA DEEPTHI	MBA
6	221FC01035	KONDA MOHAN MANIDEEP REDDY	MBA
7	221FC01044	SHAIK SHIRIN	MBA
8	221FC01050	JITTA VENKATA LAKSHMI	MBA
9	221FC01055	SHAIK NAGURBI	MBA
10	221FC01062	PEETHALA KARTHIK YADAV	MBA
11	221FC01071	DASARI HARI GANESH	MBA
12	221FC01075	AITHANEDI NIHARIKA	MBA
13	221FC01078	KANCHARLA NARENDRA BABU	MBA
14	221FC01082	GATTUPALLI VENKATA SRAVANA LAKSHMI	MBA
15	221FC01086	KATUMALA DINESH	MBA
16	221FC01089	PULIKAM PRIYANKA	MBA
17	221FC01094	MULA RENUKA	MBA

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18	221FC01097	MACHERLA ELINA	MBA
19	221FC01111	BEJANKI SAI PRASANTH	MBA
20	221FC01117	SURAGANI VENKATESH	MBA
21	221FC01122	AMMISSETTY KEERTHI	MBA
22	221FC01128	MANDLA SWATHI	MBA
23	221FC01134	SANKULA SIVA SANKAR	MBA
24	221FC01139	ARAVAPALLI SIVA NAGENDRAM	MBA
25	221FC01147	GUNDLAKUNTA NAGALAKSHMI	MBA
26	221FC01145	SIDDULA VENKATA TRINATH	MBA
27	221FC01149	KADAGALA SRAVANI	MBA
28	221FC01137	PULIMELA GANESH	MBA
29	221FC01125	CHANDOLU MANIDEEP	MBA
30	221FC01116	BATTU PRAVALLIKA	MBA
31	221FC01119	NIMMA SAI KIRAN	MBA
32	221FC01114	NITISH KUMAR	MBA
33	221FC01109	NADAKUDITI PRAVEEN	MBA
34	221FC01105	BATCHU SAI KUMAR	MBA
35	221FC01103	KASIBOINA SHIVA SHANKAR	MBA

Awareness on Mental Health

Date: 06.11.2023

Venue: Vignan Junior college Vadlamudi

Team UEAC conducted an event to create awareness on mental health emotional well-being, and drug eradication, and make them understand their importance by shaping themselves into assets of the country.

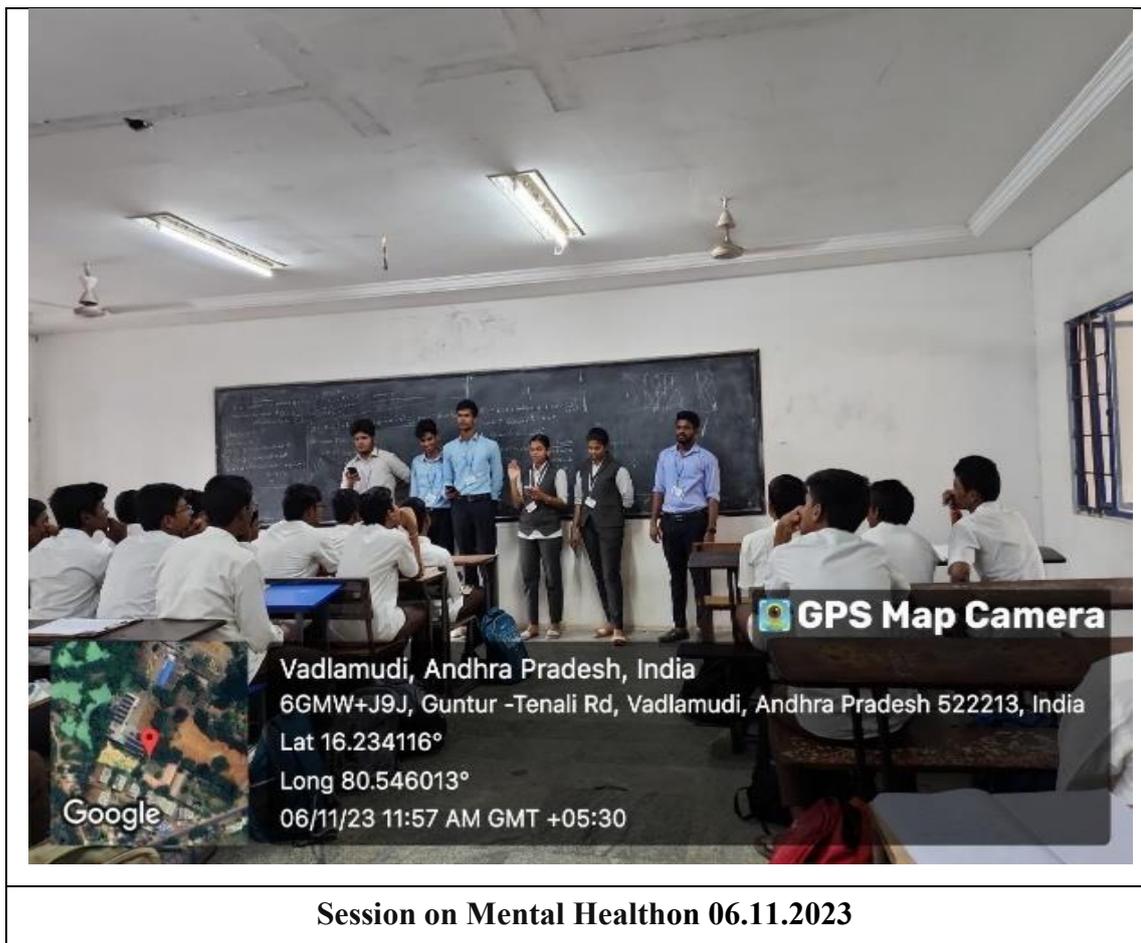
They will get to know how the individual should react to the situation and also stabilize themselves as per the situation and dos or don'ts of their current age by considering a few demographic conditions as per societal change.

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75th**University Extension Activity Council (UEAC)
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Session on Mental Health on 06.11.2023			
S. No	Reg. No	Name	Branch
1	221FK01010	BHARATH ABHINAY DODDA	BBA
2	221FK01017	CHATTU SATVIK	BBA
3	221FK01023	DASARI SRI PRANATHI	BBA
4	221FK01026	EANUGULA YASWANTH	BBA
5	221FK01036	JAKKU VENKATA VIJAY REDDY	BBA
6	221FK01043	KURRI ASRITH REDDY	BBA
7	221FK01049	MOHAMMAD FARJANA	BBA
8	221FK01053	NALLABOTULA SOUMYA	BBA
9	221FK01057	PANCHARIYA BHAVESH	BBA
10	221FK01060	PERAM VENKATA SAI SAMPATH	BBA
11	221FK01064	PULI BHAVYA SREE	BBA
12	221FK01071	SHAIK ABDUL GAFFAR	BBA
13	221FK01077	SHIVAM KUMAR	BBA
14	221FK01083	VIRAJ SHARMA	BBA

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15	221FK01088	POLISETTY S H N MANIKANTA	BBA
16	221FK01095	LAGHUMAVARAPU SIVA NAGA MANI SWETHA	BBA
17	221FK01101	SADINENI RADHIKA	BBA
18	221FK01103	RATHAMSHETTY BHUVANESHWAR	BBA
19	221FK01107	GALIZERUGULA BHANU TEJA	BBA
20	211FK01045	KOTA PRIYANKA	BBA
21	211FK01050	MALLADI SAI ANVITHA	BBA
22	211FK01059	MUKKAMALLA KARTHIK REDDY	BBA
23	211FK01064	NARSING KEERTHI PRIYANKA	BBA
24	211FK01071	PONNAPATI AKESH REDDY	BBA
25	211FK01078	RAVINUTHALA JOSEPH SUNEETH	BBA
26	211FK01083	SHAIK KHURSHID	BBA
27	211FK01087	SHAIK CHEJARLA JANNATH HUSSAIN	BBA
28	211FK01092	SHAIK MOHAMMAD MUSTHAF A	BBA
29	211FK01096	SHAIK SAMADH	BBA
30	211FK01102	TALLA GOKUL KRISHNA	BBA
31	211FK01107	VANGALA SAI PRIYA	BBA
32	211FK01112	WASIM AHMAD	BBA
33	211FK01117	LOLLA SRI VEERA PHANINDRA	BBA
34	211FK01127	ADAPA BHUVANESHWAR	BBA
35	211FK01149	PINJARI SAMEERA	BBA

SWATCH VIGNAN

Date: 10.11.2023

Venue: Vignan university

On November 10, 2023, the UEAC team organized a "Swatch Vignan" event to promote cleanliness and hygiene upkeep. The event's primary goal is to raise kids' awareness on the value of hygiene.

This event had been a regular occurrence every week in different parts of the university, it was unique because, for the first time, it encompassed all the university blocks. The event was started by 2:00 PM with the presence of all the core team, vertical leads, vertical members, section coordinators and volunteers. This includes around 362 members from different



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departments. The Objective of the cleanliness drive is to get rid of all the non-biodegradable waste like plastic covers, plastic straws, rubbers, toxic substances, fibres and thermocouples and clean university premises.

The core team, vertical leads, vertical members, section coordinators, volunteers, and other members of our UEAC team convened at the college. They are organized into groups based on the branches' disciplines, and each group has made a contribution to the university's cleanliness. The folks assembled around A-block and H-block were addressed by Dr. Vijaybabu Palukuri UEAC Programme Officer and Suresh Babu UEAC Coordinator. The CSE department coordinator, Badhar Saheb, joined to help the students around N-block. The first-year faculty coordinator, Veeranjinneyulu, spoke to the students in the A block. The U block students were addressed by L. Ashish Kumar, the faculty coordinator for the law department. At 2:30 PM the event got underway. At 4:00 PM, the event was finally over.



“Swatch Vignan” Event in Vignan University on 10.11.2023

List of volunteers:

SWACHH VIGNAN on 19.11.2023			
S.No	Reg.No	Name of the Student	Branch
1	231FA04415	KUKATLA SRAVANI	CSE
2	201FA04248	DARLA PHANI PRAHARSHA	CSE

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3	221FA18052	SANDHU BHARAT SAI	AIANDML
4	231FA05152	DONDAPATI LEELA VINOD KUMAR	ECE
5	231FJ01052	JANGALA DEEPIKA	BCA
6	221FA04198	VUYYURU JYOSHIKA SRI	CSE
7	221FA06012	SUNKARA EESWARA REDDY	EEE
8	231FA18450	DIVI GOWTHAM CHOWDARY	AIANDML
9	221FA04381	MAKHAM BALA LAKSHMI SUJITH	CSE
10	201FA04382	ALLA HEMA NISHITA	CSE
11	231FA04171	YERRIBOINA AMRUTHA	CSE
12	231FA04838	KOYA NAVYA SRI	CSE
13	211FA04460	RAVIPUDI LAKSHMI PRASANNA	CSE
14	231LA03003	PAYYAVULA SIVA SANKAR	CIVIL
15	231FA04561	VASIREDDY AKSHITA NEHA	CSE
16	211FA19009	GOGADA JYOTHI SUBRAHMANYAM SAI	CSECS
17	231FA19062	BETHALA SUPRIYA	CSECS
18	221FA04456	PARADAPARAPU MOKSHAGNA	CSE
19	211FA07022	POPURI SRIHARIKA	IT
20	231FW01095	MANGUNDU TANAKA	BSC HONS
21	221LA03009	DANTHALA ANAND PAL	CIVIL
22	231FA01098	GURAJALA YASWITHA	BIOTECH
23	221FA18031	KASINDALA CHARAN CHOWDARY	AIANDML
24	231FA04F10	JAMMULA BHANU TEJA	CSE
25	211FA07054	KATARU VEERA SHANMUKA	IT
26	231FA05235	PERAVALI SONIKA	ECE
27	221FA14068	DEVIREDDY MALLA REDDY	BI
28	231FA06039	MAZANI KUDAKWASHE BLESSED	EEE
29	231FA23091	KOYA JHANSI	DS
30	211FA07007	NADIMPALLI MANI SALYA KUMAR	IT
31	211FA04590	VISSA RAJA SAI SUMANTH	CSE
32	231FA04522	RAMISETTY CHANDANA	CSE
33	221FJ01021	GOLI CHAKRA HARSHA SAI	BCA
34	221FA04603	GNANESHWAR REDDY DONTIREDDY	CSE
35	221FA05187	DOSAKAYALA AKHILA	ECE
36	221FA04087	YARRAMSETTY MANOJ	CSE
37	211FA06036	CHATTI GURU SAI KUMAR	EEE
38	231FK01141	RAVI KUMAR	BBA
39	201FA04099	JANGA NAGA VENKATA GANESH	CSE
40	211FA04526	PALLAPU VAMSI	CSE
41	201FA15080	GOPALAPPAGARI UDAY	FT
42	211FA18018	SIDDAMSETTI VAMSI KRISHNA	AIANDML

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43	211FW01011	ANUMULA VENKATA RAMANJANEYULU	BSC HONS
44	211FA07062	PALADUGU GOPI KRISHNA	IT
45	221LA06011	SHAIK GULAB SHA	EEE
46	231FA04B50	KOLLURU VEDA SRI SURYA SASANK	CSE
47	221FA05176	LINGA NANDINI	ECE
48	221FA04542	SANAGAPALLI S V K SIVA NAGA SAI	CSE
49	211FA04374	EEVURI UMESH REDDY	CSE
50	221FA04063	VANKA BHUVANA SAI MOUNEENDRA	CSE
51	221FA14085	VUYYURU KESAVI HIMABINDHU	BI
52	231FW01089	CHIKOTO TAPIWANASHE MUNMARADZI	BSC HONS
53	221FA01164	SYED NAZIYA	BIOTECH
54	221FA23011	PALAPARTHI SHARON SUKEERTHANA	DS
55	231FA16038	KAPULAPALLI LAKSHMI ASRITHA REDDY	BM
56	211FA05301	BHOGIREDDY LAKSHMI MANI TEJA	ECE
57	211FA18118	MANOJ DASARI	AIANDML
58	211FA04080	BURRI SAHITHI	CSE
59	211FA04049	JAMIGUMPULA MANIKANTA	CSE
60	231FA04051	NANDA HARIPRIYA	CSE
61	221FA02004	EMMANUEL SIMON MARTIN SEBIT	CHEM
62	201FA16027	SHAIK AARIFA	BM
63	221FA03001	NUKATOTI HANOKU	CIVIL
64	221FA04738	AKSHAY KUMAR	CSE
65	231FA04272	ORSU LIKHITA PRIYA	CSE
66	201FA14037	C VENKATA SRIHITHA	BI
67	201FA07049	BAVIRISETTY PRASANNA KUMAR	IT
68	231FA04G76	SHANKAR KUMAR	CSE
69	221FA04644	BACHINA NIKHILESH	CSE
70	221FA07032	ALLU MAHESH POTHAN	IT
71	211LA08008	KONDA HARSHANTH	MECH
72	211FA05289	NEELAM PHANEENDRA SAI	ECE
73	211LA10005	ATTHOTA ABHINAVA MANIKANTA CHOWDARY	AME
74	211LA06002	P.ROJA	EEE
75	221FA14043	DUDEKULA SAFIYA	BI
76	211FM01031	POTTI KOTESWARI	BSC
77	211FA06023	CHALLA VENKATA GIRISH	EEE
78	211FA19026	GURIVINDAPALL BHANU PRAKASH	CSECS
79	211FA04424	PAMMI SOWJANYA	CSE
80	231FA04132	PARABATHINA RAHUL BABU	CSE
81	211LA05010	SURYADEVARA SAI LATHA	ECE

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82	231FA05234	VEMULA V S S LAKSHMI DURGA SNEHITHA	ECE
83	211FA01018	GOBATTINI CHANDANA	BIOTECH
84	231FA23105	BATTULA SUSHMITHA CHOWDARY	DS
85	231FA04433	AKKALA HEMANTH REDDY	CSE
86	211FA04084	MOVVA VENKATESH	CSE
87	211FA05145	RAMINENI GAYATHRI SAI	ECE
88	211FW01051	VEMPARALA NAVYA SRI	BSC HONS
89	211FJ01079	MOHAMMAD SUHANA BIBI	BCA
90	211FA04520	DHANUKOTI UMA MAHESH	CSE
91	211LA22001	RAJANALA ANKARAO	TT
92	231FA04288	TIRUKKOVALLURI MONALISA	CSE
93	211FA08010	BUTHUKURI MANIKANTA REDDY	MECH
94	231FC01066	NALLAPATY GOPI NADH	MBA
95	221FA18011	MACHARLA LAKSHMI SRINIVASA BHARGAVA SAI	AIANDML
96	221FA05143	MATTAPARTHI VENKATESH	ECE
97	211FA04271	BATHULA SAI TEJA	CSE
98	231FA19064	JAHNAVI KAMEPALLI	CSECS
99	231FK01095	MUTHINENI CHAITANYA	BBA
100	221FA04265	TADIKAMALLA SOWMYA SRI	CSE
101	221FJ01010	BAPATLA SOMESWAR	BCA
102	231FA04283	VARRA AVANTHIKA REDDY	CSE
103	201FA04074	REDDYVARI UDAY KUMAR REDDY	CSE
104	231FA04118	PATHAN NAZEER	CSE
105	211FA21006	CHILAKA LOKESH JAYA RAO	RA
106	231FA04A86	TEJESH PERAM	CSE
107	211FA06003	KODURU HARIKA NAGA LAKSHMI PRIYA	EEE
108	221FA23005	GEETHA M	DS
109	231FK01042	JAMPANI SAI PRAVALLIKA	BBA
110	231FA05261	MURUKUTLA NAMITHA	ECE
111	201FA04289	BONAM PRAVEEN KUMAR	CSE
112	211FA05229	PARIMI SAI TEJA	ECE
113	211LA04005	GOGINENI LAKSHMI SRAVANI	CSE
114	221LA16003	SHAIK ABDUL RAMEEZ	BM
115	231FA01020	SHAIK RESHMA	BIOTECH
116	211FA04475	ANUSHKA	CSE
117	231FA04835	PALLAPOTHU MOHANA KRISHNA VENI	CSE
118	231FA18402	TAVITI JWALA NARASIMHA	AIANDML
119	221FA04658	MALLADI POOJITHA	CSE
120	231FA05122	BANDARU NAGA SREEKAR	ECE

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121	221FA04736	PRATYUSH KUMAR	CSE
122	231FA04B35	TELLA VISHNU PRIYA	CSE
123	211FA08006	BODDU HARSHA VARDHAN	MECH
124	231FA04A82	ALLAM VARSHINI	CSE
125	221FA04685	TIYYAGURA KARTHIKEYAN REDDY	CSE
126	211FA01002	VANAMA LAKSHMI PRIYANKA	BIOTECH
127	231FC01018	PIRATLA RAVI TEJA	MBA
128	231FA04962	KANAKAM DIVYENDRA	CSE
129	201FA04175	VEERLA LAKSHMI NEEHARIKA	CSE
130	211FK01076	RAVELLA HEMANTH SAI	BBA
131	211FA06033	SUDA MARUTHI GOPI CHAND	EEE
132	221FA01017	VELAGA LIKHITHA GAYATHRI	BIOTECH
133	211FA01136	KOLLAMMAGARI SREE LEKHA	BIOTECH
134	221FA01010	MALLADI PRAVALLIKA	BIOTECH
135	231FA14082	BAINENI JASWANTH SAI	BI
136	231FA23011	DEVAKI GOPI KRISHNA KURAKULA	DS
137	231FA18045	MUPPASANI VENKATA SAMYUKTHA	AIANDML
138	231LA22003	KONDLAPALLI GOWTHAM	TT
139	221FA04724	PITLA MANOHAR	CSE
140	211FA05161	DODDI VENKATA ANAND DWEEPAK	ECE
141	231FA04734	BATCHU NAGA SRI SOWKHYA	CSE
142	211FA15048	TADI BHAVYA VAISHNAVI	FT
143	221FA06019	MUNNANGI VARSHITHA	EEE
144	231FA20014	SHAIK YASIN BASHA	CSBS
145	211FA04627	GUMMUDU SUMALATHA	CSE
146	201FA01063	DUVVURU PRAGNA REDDY	BIOTECH
147	211LA05012	PEDDAPULI REVANTH KUMAR	ECE
148	231FA07113	APPIDI SAI KUMAR REDDY	IT
149	221FA01073	YARLAGADDA AANATHI	BIOTECH
150	231FA05304	AMAN KUMAR RAI	ECE
151	211FA08007	BATTULA KALYAN RAM	MECH
152	201FA07062	CHINTAKUNTLA VIVEK REDDY	IT
153	201FA15033	KAMBHAMPATI LIKHITHA	FT
154	211FA04201	KAMMA MADHURI	CSE
155	201FA04216	BANDREDDY SAI BASAVIAH NAIDU	CSE
156	231FA05238	KANAMARLAPUDI SRIDHAR ANANTH KUMAR	ECE
157	211FA01014	TUPAKULA SANDHYA	BIOTECH
158	221FA04507	DIVYA GUPTA	CSE
159	231FC01009	SHAIK ABDUL AYZAZ	MBA

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160	231LA02003	BANDELA UDAYABHASKAR	CHEM
161	231FA04756	SAKALABHAKTULA KOUSHIK	CSE
162	221FA05221	MONDITHOKA SOWMYA	ECE
163	221FA05088	VEERANKI SIVA NAGA PHANINDRA	ECE
164	221FA05041	CHATRA SRAVANI	ECE
165	221FA04006	NARALASETTI BALA SAI	CSE
166	231FC01023	KOPPURAVURI CHAITANYA SAI RAM	MBA
167	211FK01047	LAKKI REDDY AJAY KARTHIK REDDY	BBA
168	201FA04208	VIJAYABHARATI K	CSE
169	201FA01093	UPPUTURI SYAM KUMAR GUPTA	BIOTECH
170	221FA04473	BATTULA HIMA BINDU	CSE
171	231FA14051	CHITTEM KEERTHI	BI
172	211LA05038	SANIKOMMU SRIKANTH REDDY	ECE
173	231FA04C10	BOBBELLA GANESH	CSE
174	221FJ01047	MOHAMMED AHMED KHALID AHMED	BCA
175	211FA04582	VARANASI N V SIVA LAKSHMI NARAYANA	CSE
176	231FA04989	PAIDIMARRY BHAVYA SRI	CSE
177	231FA04532	SURAPUREDDY MEGHANA REDDY	CSE
178	231FA14033	MIDABALA SRINIVAS	BI
179	211FW01020	EMULA BAJI BABU	BSC HONS
180	231FA07048	MUPPA KALYANI	IT
181	231FA05251	SHAIK FAYAZ	ECE
182	231FA05158	MEDA CHANIKYA VISHNU	ECE
183	221FA07123	KONDRAGANTI LOKESH CHOWDARY	IT
184	211FA05303	AMUDALA SAI BABJI	ECE
185	231FA04C72	RAMINENI KAILASH	CSE
186	221FA07089	JAKKAM LAVANYA	IT
187	231FA05064	SHAIK PAKALAPATI MABU SUBHANI	ECE
188	201FA04266	GOGIREDDY SAISRUTHI	CSE
189	231FW01069	VENNA TEJASWI	BSC HONS
190	221FA04632	KANNA KAVYA NANDINI	CSE
191	221FA04223	KANDUKURI SIRISHA	CSE
192	211FA05194	VEMULAPATI SUBBA REDDY	ECE
193	221FC01083	SANNEBOINA MARY USHA SRI	MBA
194	231FA04G81	KOMATIGUNTA YAMUNA	CSE
195	211FK01045	KOTA PRIYANKA	BBA
196	221FA18109	SHAIK SALWAR	AIANDML
197	231FA18153	MASIMUKKALA SUNIL	AIANDML
198	201FA07068	KATIKA KALESWARAMMA	IT
199	231FA14026	DONTHU SUMA JOSHNA	BI

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200	221LA06009	RAAVI SATYANARAYANA	EEE
201	231FC01117	MORLA PAVAN	MBA
202	211FA15022	P.S.V.N.SRINIVAS	FT
203	211FA04034	LINGINENI LAKSHMI SOWJANYA	CSE
204	201FA14016	CHIRALA SRAVANI	BI
205	231FA04487	KOLLIPARA BHUVANA VENKATA LAKSHMI ANUJA	CSE
206	231FA16054	BURHAN LATEEF	BM
207	211FJ01075	GUDE HARIKA	BCA
208	231FA04A84	MAKINENI BALA BHOOMIKA	CSE
209	211FA16006	NANNA SANJANA	BM
210	221FA04494	KOTHAPALLI VENKATA SAI SANDEEP	CSE
211	221FA04725	ADITYA KUMAR	CSE
212	231LA18001	PADALA VISHWA BADRINADH	AIANDML
213	231FC01025	VEERANKI PAVANI	MBA
214	231FA04945	ARUMALLA SIRIVENNALA	CSE
215	231FA04C03	BODAPATI MAHESH	CSE
216	221FA04687	BALUSU DIVYA SNEHITHA	CSE
217	231FJ01064	SHAIK MOHAMMAD ATHEEF	BCA
218	231FA18063	TAVVA JAGADISH	AIANDML
219	221FA05060	PERAM TANUJA	ECE
220	231FA19063	SHAIK SAFIYA MUSKAAN	CSECS
221	201FA04294	EMANI.DURGA SRINIJA	CSE
222	231FA07122	CHEERABOINA LAKSHMI THIRUPATHAMMA	IT
223	231FA01118	SHAIK SHARMILA	BIOTECH
224	231FA04821	CHAKRAVARAM UMA CHANDRA SEKHARA RAJU	CSE
225	191FA05094	KAKARAPARTHI SESA RAO	ECE
226	231FA04353	ADDANKI GEETIKA	CSE
227	211FM01058	ENDLA DIVAKAR REDDY	BSC
228	211FA05257	SUNKARA DINESH KUMAR	ECE
229	211FK01094	SHAIK RIHAN	BBA
230	231FA18184	SHAIK ARSH AFROZ	AIANDML
231	231FA04D45	YENIGALLA SHANMUKH	CSE
232	231FA19085	KONDRAGUNTA JOSHIT SIMHA	CSECS
233	231FK01129	MEESALA REVANTH SAI	BBA
234	231FA04B40	PALEPU M N V SAI RANGA PRABHA	CSE
235	221FW01118	NETHULA VENKATA RAVALI	BSC HONS
236	231FA04844	KARI POOJITHA	CSE
237	231FA05229	POOLA GIRISH NAIDU	ECE

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238	231FA05022	VENNAPUSA ANUGNA	ECE
239	221FA01099	UPPALA VARSHITHA	BIOTECH
240	221FK01088	POLISETTY S H N MANIKANTA	BBA
241	211LA06017	CHIMAKURTHI THULASI MAHA LAKSHMI	EEE
242	231FA20015	GALI ANIL KUMAR	CSBS
243	211FA18053	MUPPALLA SOWMYA	AIANDML
244	231FM01007	DOKKU JAHNAVI	BSC
245	211FA05073	RENTAPALLA BALAMURALI KRISHNA	ECE
246	231FA04534	ANITHA YENNA	CSE
247	211FA02002	GUDIPUDI JAGADISHWAR RAO	CHEM
248	201FA01080	JAMMOJU VEERA VENKATA RAGHAVENDRA DHANUSH	BIOTECH
249	231FA04672	PATHURI SAICHANDH	CSE
250	231FA05183	MAKUTAM LAKSHMI DURGA JYOTHI	ECE
251	221FA18057	BANDLAMUDI MOUNIKA	AIANDML
252	211FW01062	KAMIINENI ADHITHYAA	BSC HONS
253	211FW01007	KOTIKALAPUDI SUHAS PAUL	BSC HONS
254	231FA04B29	KALATHURI VENKATA ROHITH KUMAR	CSE
255	211FA07089	TIRUNAGARI VENKATA GOPI KRISHNA	IT
256	231FA04793	MOGILI GOPI CHAND	CSE
257	231FA04A45	MUKKU SAI PREETHI	CSE
258	201FA04160	MADDIREDDY VENKATA SESA SAI SRIJA	CSE
259	211FA04319	DHANASIRI KAVYA	CSE
260	211LA05007	NAGUMOTU ANJANA SRI	ECE
261	231FA04D29	GORANTLA ASRITHA	CSE
262	211FA15019	PRANATHI CHANDRIKA PANCHAKARLA	FT
263	221FA05015	GAVINI LAVANYA	ECE
264	201FA19006	BADE RISHIKA	CSECS
265	201FA04334	KONDRAGUNTA NEHA	CSE
266	221FA04329	PEMMASANI SRI KRISHNA SAI	CSE
267	231FC01087	NALLURI VEERA SIVA NANDEESWARA RAO	MBA
268	221FW01171	DEV SHANKAR THAKUR	BSC HONS
269	201FA05016	GUDIBANDI AVINASH BHARGAV REDDY	ECE
270	231LA05024	KADADALAPU VENKATA SIVA TEJA	ECE
271	221FA04066	GUDAPATI PUJITHA	CSE
272	211FA07020	VENKATA SAI RAHUL VEMULURI	IT
273	201FA07069	RASAMSETTY G V L BHARATH	IT
274	231FA01078	RUDRARAJU NEHA SRI	BIOTECH
275	231FA04169	MOHAMMAD AATHIYA	CSE
276	231FD01074	LUKKA VENKATA SRI RAM	MCA

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277	211FA04440	NERELLA GEETHA SREE	CSE
278	221LA05013	THOTA ROHITHSAI	ECE
279	211FA04602	JETTI SUBHASHINI	CSE
280	221FA04146	KARUMANCHI JASWANTH TULASI NADH	CSE
281	211FA04295	TOTA KAVYA SREE	CSE
282	201FA04291	CHAVA RANJITH KUMAR	CSE
283	221FA04070	PASUPULETI NITHYA	CSE
284	231FA07151	KANCHARLA SUMEERA	IT
285	211LA12003	GOBBURI LOKESWARI	AG
286	231FC01102	MUSKAN KUMARI JAISWAL	MBA
287	211FA08032	KATLA NITIN ASRITH	MECH
288	221FA06033	RAJNIKANT KUMAR	EEE
289	211LA06023	THOTA INDU	EEE
290	201FA04273	BHAVIRISETTI VARA LAKSHMI	CSE
291	231FA05297	THOTA SRIRAM	ECE
292	201FA04110	MUNDLAMURI AKHIL CHOWDARY	CSE
293	231FA04B65	ALLAMSETTY SHANUMUKH SAI SRI BALAJI	CSE
294	201FK01051	GOLLA VENU	BBA
295	211LA05009	BOLLU RAHUL	ECE
296	211FA04400	MULE RAMANJANEYULU	CSE
297	211FA04134	RAHUL CHANDRA	CSE
298	231FW01048	PATHAN SAMEENA KHANAM	BSC HONS
299	231FA04D54	KATTIKA KARTHIK VARMA	CSE
300	211FA04120	MANDALA ABHISHEK	CSE
301	231FA05033	JASTI UDAY TEJA	ECE
302	211FA04620	GUNDAVARAPU KIRAN MARUTI RANGA SAI SRI	CSE
303	221FW01115	PULICHARLA PRAVALIKA	BSC HONS
304	231FA04B90	UPPALAPATI SRI BHUVANA LAKSHMI	CSE
305	221FA07139	PERUMALLA SATYA VARUN	IT
306	231FA16046	JAMM MAYIIK MICHAR DENG	BM
307	211FA14061	SHARON KUMAR MUNAGATI	BI
308	211FA04542	KATIVARAPU FRANCIS	CSE
309	231FA04660	VELPURI SAI MOUSHMI	CSE
310	201FA17006	MOHAMMAD FAIZAN RAZA	PE
311	221FA04503	GUJJU JOSEPH ANAND KUMAR	CSE
312	221FA18092	GUNTURU TEJASWINI	AIANDML
313	221FA05034	VARIKALLU ANKARAO	ECE
314	221FC01096	SYED KARISHMA KAREEM	MBA
315	201FA01030	MIRIYALA SAHITHI SREE	BIOTECH

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316	211FK01115	YEPURI VIJITHA	BBA
317	231FC01119	KANCHUGANTLA SRINIVAS GOPI	MBA
318	231FA04C94	PASUMARTHI SRI PRASANTH	CSE
319	221FA04406	ASODI TEERDHA GANESH REDDY	CSE
320	211FA14036	GORANTLA BALA SARASWATHI	BI
321	201FA05005	BOMMAGANTI KEERTHANA	ECE
322	231FA23027	MALLINA SUSMITHA	DS
323	231FA04F28	PAMIDI PRADEEP MANIKANTA	CSE
324	221FA04118	SHIVAM KUMAR	CSE
325	231FW01033	KOLUSU ABHITHA	BSC HONS
326	221FA05160	MANTRAPUDI NIKHILA	ECE
327	211FK01090	SHAIK KHAJA MOINUDDIN	BBA
328	231FA04B92	KATUKOTA PREAM KUMAR	CSE
329	211FA04210	PALADUGU JAYANTH	CSE
330	211FA04040	MANDADHI ALEKHYA	CSE
331	211FM01033	SANAM PRAVALLIKA	BSC
332	231FA04E79	ALLA LEELA MANVITHA	CSE
333	231FA04C12	JASTHI PAVITHRA	CSE
334	231FA04F35	GUNTUPALLI MEGHANA	CSE
335	211FA04390	PARIMI VENKATA SAI YOGESWAR	CSE
336	231FA04762	CHILAKALA DURGA SIVA DHANUSH	CSE
337	231FA14007	MYNENI JANANI SRI	BI
338	221FM01007	POTTURI SONU SAHANA	BSC
339	231LA06003	VADUPU DURGA DINESH	EEE
340	221FW01061	NANDAM PHANINDRA SUBHASH	BSC HONS
341	231FA07086	PARASARAM HANUMANTH SRI VATSAVA	IT
342	221FJ01044	MOHAMED ADAM HASSAN ADAM	BCA
343	231FA04833	KODALI HEMANJALI	CSE
344	221FA04156	KOTHURU VENKATA NAGA SAI KIRAN	CSE
345	211LA06015	PATHAN MOHAMMED KHAN	EEE
346	231FA18094	GANGAVARAPU DILEEP CHANDU	AIANDML
347	211LA08017	SHAIK SHAKEEL	MECH
348	231FA04007	PALLAPOTHU VINAY	CSE
349	221FA01043	KODURU JAHNAVI SAI DURGA	BIOTECH
350	231FA04067	ADDEPALLI SHANMUKHA PAVAN	CSE
351	231FA16036	PAGADALA HIMA VYSHNAVI	BM
352	211FA06014	BACHHANABOINA SAI PUJITHA	EEE
353	221FW01130	PODILI SRI SAI GOPI KRISHNA	BSC HONS
354	231FA18413	GUDE MADHU	AIANDML
355	221FA21003	MANCHINA SIVA BHARGAV	RA

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356	211FK01009	BOMMAREDDY KAVYA	BBA
357	211FA07105	SHAIK AASIF	IT
358	231FA07032	SOMIAHGARI PREM CHAND	IT
359	231FA04077	SAI SREEJA GUJJIDI	CSE
360	221FA07120	GOLLAPUDI SHILPA	IT
361	221FA05131	PUSALA P R V DATHATREYA	ECE
362	221FA04227	AYINAPARTHI PURNA PRABHA ROHINI	CSE

Cancer Awareness

Date: 15.11.2023

Venue: ZPHS Sangamjagarlamudi

On November 15, 2023, the NSS – UEAC wing of VFSTR, in collaboration with the EEE department, conducted a cancer awareness event at Sangamjagarlamudi ZPHS.

The purpose of this event was to educate both boys and girls about cancer, including how it develops and how one can prevent it. Students were the event's intended audience. A total of 35 EEE department students, including the primary organizer, chief coordinator, and section coordinators, took part in this event, which got underway at 11:30 a.m. The students actively participated and had their queries answered by the volunteers, who were split up into groups and visited sixth- to ninth-grade classrooms to raise awareness on cancer, its root causes, warning signs, and ways to prevent it through preventative measures.

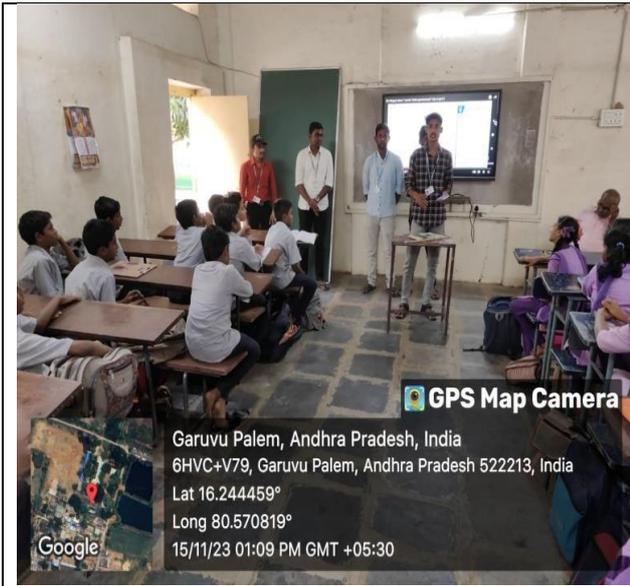
In conclusion, the students acquired a consciousness of cancer and some precautions to prevent cancer.

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Annual Report – 2023-24****Cancer Awareness Program in School on 15.11.1023****List of volunteers:**

Awareness Program in School on 15.11.1023			
S.No	Reg.No	Name	Branch
1	211FA06011	VARAGANI ANJANEYULU	EEE
2	201FA06005	AHMED NADIR ABDELMAGID MOHAMED	EEE
3	211FA06036	CHATTI GURU SAI KUMAR	EEE
4	211FA06033	SUDA MARUTHI GOPI CHAND	EEE
5	221FA06025	BOLLU LOKESWARI	EEE
6	221FA06023	NALAMOTU VENKATA SACHIN	EEE
7	211FA06010	DEMULA CHARAN	EEE
8	221FA06010	TUMULURI SRI GANESH CHANDRA	EEE
9	211FA06021	KANDRU NOKESH	EEE
10	221FA06031	ATTILI PRABHAKAR VENKATA SAI	EEE
11	211FA06001	THOTA YASWITHA	EEE
12	211FA06037	GUDIPALLI TEJA	EEE
13	221FA06022	ONTIPULLI BALA SUBRAMANYAM	EEE
14	221FA06011	SHAIK IMRAN BASHA	EEE
15	201FA06008	BANTY KUMAR PRASAD	EEE
16	211FA06005	CHAVALAMUDI SAI MONIKA	EEE
17	221FA06019	MUNNANGI VARSHITHA	EEE
18	211FA06034	DAMMU YASWANTH NAVEEN KUMAR	EEE
19	211FA06008	RAJANALA ANNAPURNA DEVI	EEE
20	201FA06003	VEJENDLA AKASH	EEE
21	221FA06024	MOHAMMAD MAHABUBE SUNAYN	EEE
22	201FA06007	ADDEPALLI VASAVI KALYANI	EEE

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23	221FA06013	SANCHULA BADARI AJITH NARAYANA	EEE
24	221FA06014	MYLA JAYANTH KOUSTHUBHA ESWAR	EEE
25	211FA06032	VAKA NAGA PRATHAP	EEE
26	211FA06009	VEMURI MOHANA ARAVIND	EEE
27	211FA06025	MAJETI SATYA MOHANA KRISHNA	EEE
28	211FA06004	MEJANRAO SUSHMA	EEE
29	221FA06007	SEETALAPU UMESH NAGA CHANDRA	EEE
30	221FA06015	CHIMATA PREM SAI	EEE
31	221FA06021	PEDDIRAJU LEELA VENKATA LAKSHMI	EEE
32	211FA06035	MANDAGIRI NAVEEN VINAY	EEE
33	221FA06012	SUNKARA EKESWARA REDDY	EEE
34	211FA06029	TAVVA SAIMANIKANTHA	EEE
35	221FA06020	MEDIKONDA LAKSHMI SUKANYA	EEE

Quiz Competition

Date:15.11.2023

Venue: ZPHS, Sangamjagarlamudi

On 15th November 2023, a quiz competition event was organized by NSS – UEAC wing of VFSTR in Sangamjagarlamudi Z.P.H.S and it was organized by EEE department.

The aim of this event was to create a competitive spirit and acquire more general knowledge among the students. The target audience for this event was the students. This event began at 11:30 am with a total of 35 students from the EEE department including the chief organizer, chief coordinator and section coordinators.

This quiz competition was held only for 9th-standard students and the quiz was about the latest achievement i.e., chandrayaan3. The students actively participated in the quiz competition and many of the students had enough knowledge on the chandrayaan3. The highest score was 16 out of 20. There were 3 sections in the 9th standard and we distributed the prizes. The prize sponsor is our HOD Dr. P.V.S. Shoban. In conclusion, the students actively participated the made the event successful.



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Quiz Competition and Distributed Prizes on 15.11.2023

List of Volunteers:

Quiz Competition and Distributed Prizes on 15.11.2023			
S. No	Reg. No	Name	Branch
1	211FA06011	VARAGANI ANJANEYULU	EEE
2	201FA06005	AHMED NADIR ABDELMAGID MOHAMED	EEE
3	211FA06036	CHATTI GURU SAI KUMAR	EEE
4	211FA06033	SUDA MARUTHI GOPI CHAND	EEE
5	221FA06025	BOLLU LOKESWARI	EEE

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6	221FA06023	NALAMOTU VENKATA SACHIN	EEE
7	211FA06010	VEMULA CHARAN	EEE
8	221FA06010	TUMULURI SRI GANESH CHANDRA	EEE
9	211FA06021	KANDRU NOKESH	EEE
10	221FA06031	ATTILI PRABHAKAR VENKATA SAI	EEE
11	211FA06001	THOTA YASWITHA	EEE
12	211FA06037	GUDIPALLI TEJA	EEE
13	221FA06022	ONTIPULLI BALA SUBRAMANYAM	EEE
14	221FA06011	SHAIK IMRAN BASHA	EEE
15	201FA06008	BANTY KUMAR PRASAD	EEE
16	211FA06005	CHAVALAMUDI SAI MONIKA	EEE
17	221FA06019	MUNNANGI VARSHITHA	EEE
18	211FA06034	DAMMU YASWANTH NAVEEN KUMAR	EEE
19	211FA06008	RAJANALA ANNAPURNA DEVI	EEE
20	201FA06003	VEJENDLA AKASH	EEE
21	221FA06024	MOHAMMAD MAHABUBE SUNAYN	EEE
22	201FA06007	ADDEPALLI VASAVI KALYANI	EEE
23	221FA06013	SANCHULA BADARI AJITH NARAYANA	EEE
24	221FA06014	MYLA JAYANTH KOUSTHUBHA ESWAR	EEE
25	211FA06032	VAKA NAGA PRATHAP	EEE
26	211FA06009	VEMURI MOHANA ARAVIND	EEE
27	211FA06025	MAJETI SATYA MOHANA KRISHNA	EEE
28	211FA06004	MEJANRAO SUSHMA	EEE
29	221FA06007	SEETALAPU UMESH NAGA CHANDRA	EEE
30	221FA06015	CHIMATA PREM SAI	EEE
31	221FA06021	PEDDIRAJU LEELA VENKATA LAKSHMI	EEE
32	211FA06035	MANDAGIRI NAVEEN VINAY	EEE
33	221FA06012	SUNKARA EKESWARA REDDY	EEE
34	211FA06029	TAVVA SAIMANIKANTHA	EEE
35	221FA06020	MEDIKONDA LAKSHMI SUKANYA	EEE

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Awareness on Air Pollution

Date: 16.11.2023

Venue: ZPH School Vejudla

The goal of the "Awareness on Air Pollution" activity is to give participants a thorough rundown of ways they can lessen air pollution. The primary goal of this campaign is to raise awareness on the significance of lowering air pollution. On November 16, 2023, NSS members from the biotechnology department of team UEAC organized this awareness camp. It has been organized to bring awareness to air pollution, a current burning topic that must be discussed now because it is one of the main reasons for global warming. ZPHS Vejudla village hosted the event from 2:00 PM to 4:00 PM. A total of 45 students along with the core team members and volunteers held this program.

The primary focus of this program is on ways to prevent global warming and lower air pollution. This program's goal is to teach schoolchildren how they can drastically reduce air pollution and halt global warming. The program starts by gathering all of the biotechnology department's members and volunteers.

At 2:00 PM, the groups are separated accordingly, and each group has donated their efforts to help the students comprehend air pollution. They all returned to the institution about 4:00 PM. Following a brief conversation with the NSS core team and an expression of gratitude for the event's success, everyone was sent off to their classrooms with a thank-you letter.

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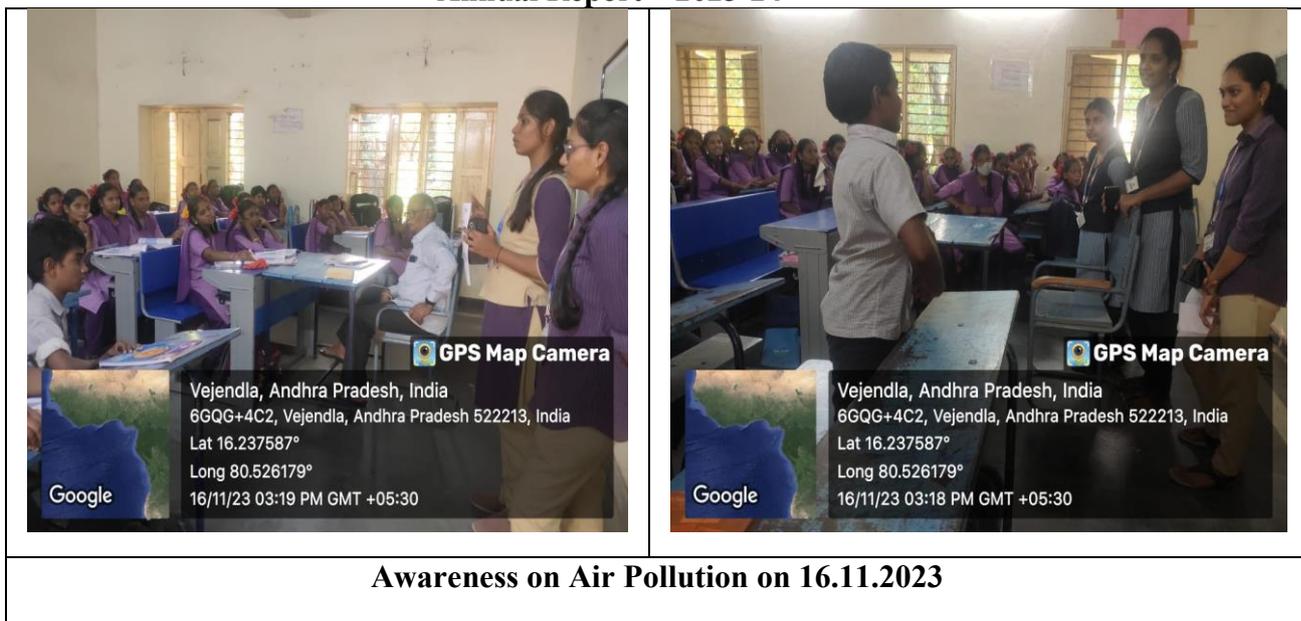
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Awareness on Air Pollution on 16.11.2023

List of volunteers:

Awareness on Air Pollution on 16.11.2023			
S.NO	Reg. No	Name	Branch
1	221FA14104	NEKKALAPU JHANSI CHOWDARY	BI
2	211FA14031	G DHANUSHA	BI
3	211FA14059	JAGARLAMUDI AMMANI	BI
4	211FA14015	LAVU KALYAN CHAKRAVARTHY	BI
5	221FA01079	ARJULA SRI SURYA KANTHI	BIOTECH
6	211FA14026	VALLAMKONDA LAKSHMI KOMALI	BI
7	221FA14082	POTTURI DURGA SARIKA	BI
8	221FA01099	UPPALA VARSHITHA	BIOTECH
9	221FA01037	THUMMA JASWANTHI	BIOTECH
10	221FA14109	PALETI JAYAM JAMES	BI
11	221FA01032	SHAMILA AFREEN	BIOTECH
12	221FA14073	AVULA VENKATA MEGHANA	BI
13	221FA01029	AASHRITHA MAROUTHU	BIOTECH
14	211FA14037	DODDA SUBHASH CHANDRA BOSE	BI
15	221FA14114	NALI NIKHITHA	BI
16	221FA14090	VIPPARLA PUSHPA VALLI	BI
17	221FA14096	RUHANI GUPTA	BI
18	221FA14062	SHAIK REHMAN	BI
19	221FA01052	NANDAGARI MEGHANA	BIOTECH
20	221FA01119	THUNUGUNTALA HARI NAGA KAVYA SRI	BIOTECH
21	221FA01005	PRINCE KUMAR	BIOTECH
22	221FA01057	JAGARLAMUDI SOHITH CHAITANYA	BIOTECH
23	211FA14045	KOTHAREDDY PRANAVI	BI
24	211FA14010	SYAMALA AKASH	BI

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25	221FA01069	SETTI ANANYA	BIOTECH
26	221FA01152	PUPPALA MOKSHITHA	BIOTECH
27	221FA01042	VERAPARAJU VENKATA SOWMYA LAKSHMI	BIOTECH
28	221FA01082	MATTA DOLA SAI NAGA DIVYA SRI	BIOTECH
29	221FA14049	RAVURI YASASWI	BI
30	221FA01031	RAVEENA KATURI	BIOTECH
31	221FA01071	MEENISSETTI GEETA KRISHNAMANAIDU	BIOTECH
32	221FA01079	ARJULA SRI SURYA KANTHI	BIOTECH
33	211FA14019	PAGADALA PREMITHA	BI
34	221FA01008	RITHIKA SURAPANENI	BIOTECH
35	221FA01083	POLAROWTHU SRI SWARNA LAKSHMI	BIOTECH
36	221FA01048	KOPPARTHI THARUNMAI	BIOTECH
37	221FA01083	POLAROWTHU SRI SWARNA LAKSHMI	BIOTECH
38	221FA01082	MATTA DOLA SAI NAGA DIVYA SRI	BIOTECH
39	221FA01023	TALLA SWATHI	BIOTECH
40	221FA01055	GUNDEPUDI KARTHIKEYA	BIOTECH
41	221FA01018	GANDHAM MAYUKHA SAI	BIOTECH
42	221FA14035	GRANDHI MINUSHA KOWSALYA	BI
43	221FA14078	JAJULA PRANATHI MALYA	BI
44	221FA01016	MAMILLAPALLI TEJASWI	BIOTECH
45	221FA01074	MUDRABOYINA JAGADEESH	BIOTECH

Awareness on the effect of Diwali crackers on animals

Date: 16.11.2023

Venue: ZP High School, Vejendla and Garuvupalem

On November 16, 2023, we held an awareness-raising event at Narakoduru ZP High School on the impact of Diwali crackers on animals. 45 students took part in this activity. To raise the kids' "awareness about the effect of Diwali crackers on various animals," they were split up into teams and dispatched to other classrooms. In addition to enjoying burning crackers, each team attended the designated classroom and raised awareness on the harm that human activity does to animals. This can significantly increase their care for animals. In any case, everyone who took part was quite eager to make it a huge success. As we wrap up our effort to increase awareness on the impact Diwali crackers have on animals, let's not forget how important it is to be.

The awareness event on the effect of Diwali crackers on animals is to increase knowledge among the students about the pain that animals undergo due to human activities. Which can lead to fear and anxiety in pets. They may experience stress, restlessness, and even physical harm due to their sensitivity to sound. This disturbance can impact their feeding, mating, and sleeping patterns.

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**Awareness on The Effect of Diwali Crackers On Animalson
16.11.2023**

List of volunteers:

Awareness on The Effect of Diwali Crackers On Animals on 16.11.2023			
S.NO	Reg. No	Name	Branch
1	221FA14104	NEKKALAPU JHANSI CHOWDARY	BI
2	211FA14031	G DHANUSHA	BI
3	211FA14059	JAGARLAMUDI AMMANNI	BI
4	211FA14015	LAVU KALYAN CHAKRAVARTHY	BI
5	221FA01079	ARJULA SRI SURYA KANTHI	BIOTECH
6	211FA14026	VALLAMKONDA LAKSHMI KOMALI	BI
7	221FA14082	POTTURI DURGA SARIKA	BI
8	221FA01099	UPPALA VARSHITHA	BIOTECH
9	221FA01037	THUMMA JASWANTHI	BIOTECH
10	221FA14109	PALETI JAYAM JAMES	BI
11	221FA01032	SHAMILA AFREEN	BIOTECH
12	221FA14073	AVULA VENKATA MEGHANA	BI
13	221FA01029	AASHRITHA MAROUTHU	BIOTECH
14	211FA14037	DODDA SUBHASH CHANDRA BOSE	BI
15	221FA14114	NALI NIKHITHA	BI
16	221FA14090	VIPPARLA PUSHPA VALLI	BI
17	221FA14096	RUHANI GUPTA	BI
18	221FA14062	SHAIK REHMAN	BI
19	221FA01052	NANDAGARI MEGHANA	BIOTECH
20	221FA01119	THUNUGUNTLA HARI NAGA KAVYA SRI	BIOTECH

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21	221FA01005	PRINCE KUMAR	BIOTECH
22	221FA01057	JAGARLAMUDI SOHITH CHAITANYA	BIOTECH
23	211FA14045	KOTHAREDDY PRANAVI	BI
24	211FA14010	SYAMALA AKASH	BI
25	221FA01069	SETTI ANANYA	BIOTECH
26	221FA01152	PUPPALA MOKSHITHA	BIOTECH
27	221FA01042	VERAPARAJU VENKATA SOWMYA LAKSHMI	BIOTECH
28	221FA01082	MATTA DOLA SAI NAGA DIVYA SRI	BIOTECH
29	221FA14049	RAVURI YASASWI	BI
30	221FA01031	RAVEENA KATURI	BIOTECH
31	221FA01071	MEENISETTI GEETA KRISHNAMANAIDU	BIOTECH
32	221FA01079	ARJULA SRI SURYA KANTHI	BIOTECH
33	211FA14019	PAGADALA PREMITHA	BI
34	221FA01008	RITHIKA SURAPANENI	BIOTECH
35	221FA01083	POLAROWTHU SRI SWARNA LAKSHMI	BIOTECH
36	221FA01048	KOPPARTHI THARUNMAI	BIOTECH
37	221FA01083	POLAROWTHU SRI SWARNA LAKSHMI	BIOTECH
38	221FA01082	MATTA DOLA SAI NAGA DIVYA SRI	BIOTECH
39	221FA01023	TALLA SWATHI	BIOTECH
40	221FA01055	GUNDEPUDI KARTHIKEYA	BIOTECH
41	221FA01018	GANDHAM MAYUKHA SAI	BIOTECH
42	221FA14035	GRANDHI MINUSHA KOWSALYA	BI
43	221FA14078	JAJULA PRANATHI MALYA	BI
44	221FA01016	MAMILLAPALLI TEJASWI	BIOTECH
45	221FA01074	MUDRABOYINA JAGADEESH	BIOTECH

Awareness on the Usage of Mobile Phones

Date:16.11.2023

Venue: ZPH School Garuvupalem and Vejendla

This activity "Awareness on Usage of Mobile Phones" aims to provide a comprehensive overview of how students can use their mobile phones in a limited way. Understanding the importance of awareness on using mobile phones and getting an idea about this is the main concept of this program. This awareness camp was held on 16-nov-2023 by NSS members of the biotechnology department of team UEAC.

It has been planned to raise awareness about mobile phone use, a subject that has to be addressed because one of the main issues facing this generation is cell phone addiction. The event was place from 2:00 PM to 4:00 PM at ZPHS in Garuvupallem hamlet. This program was organized by 45 people, including NSS volunteers and core team members. This program primarily focuses on ways to prevent mobile phone addiction, which is leading to a number of issues like depression and vision impairments. This program's goal is to teach the village's students how to avoid becoming dependent on their phones and to limit their screen time.

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The Programme commence by Assembling every (Volunteer and Member) of the biotechnology department and at 2.00 PM the dividing of groups takes place accordingly and each group contributes their efforts to make students understand awareness on using mobile phones. By 4.00 PM, all of them came back to college. Thereby after a small interaction with the NSS core team and an appreciation for the accomplishment of the event, everyone has been dispersed to their respective classes with a thank you note.



Awareness on the usage of Mobile Phones on 16.11.2023

List of volunteers:

Awareness On The Usage Of Mobile Phones on 16.11.2023			
S. No	Reg. No	Name	Branch
1	221FA14104	NEKKALAPU JHANSI CHOWDARY	BI
2	211FA14031	G DHANUSHA	BI
3	211FA14059	JAGARLAMUDI AMMANI	BI
4	211FA14015	LAVU KALYAN CHAKRAVARTHY	BI
5	221FA01079	ARJULA SRI SURYA KANTHI	BIOTECH
6	211FA14026	VALLAMKONDA LAKSHMI KOMALI	BI
7	221FA14082	POTTURI DURGA SARIKA	BI
8	221FA01099	UPPALA VARSHITHA	BIOTECH
9	221FA01037	THUMMA JASWANTHI	BIOTECH
10	221FA14109	PALETI JAYAM JAMES	BI
11	221FA01032	SHAMILA AFREEN	BIOTECH
12	221FA14073	AVULA VENKATA MEGHANA	BI

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13	221FA01029	AASHRITHA MAROUTHU	BIOTECH
14	211FA14037	DODDA SUBHASH CHANDRA BOSE	BI
15	221FA14114	NALI NIKHITHA	BI
16	221FA14090	VIPPARLA PUSHPA VALLI	BI
17	221FA14096	RUHANI GUPTA	BI
18	221FA14062	SHAIK REHMAN	BI
19	221FA01052	NANDAGARI MEGHANA	BIOTECH
20	221FA01119	THUNUGUNTLA HARI NAGA KAVYA SRI	BIOTECH
21	221FA01005	PRINCE KUMAR	BIOTECH
22	221FA01057	JAGARLAMUDI SOHITH CHAITANYA	BIOTECH
23	211FA14045	KOTHAREDDY PRANAVI	BI
24	211FA14010	SYAMALA AKASH	BI
25	221FA01069	SETTI ANANYA	BIOTECH
26	221FA01152	PUPPALA MOKSHITHA	BIOTECH
27	221FA01042	VERAPARAJU VENKATA SOWMYA LAKSHMI	BIOTECH
28	221FA01082	MATTA DOLA SAI NAGA DIVYA SRI	BIOTECH
29	221FA14049	RAVURI YASASWI	BI
30	221FA01031	RAVEENA KATURI	BIOTECH
31	221FA01071	MEENISSETTI GEETA KRISHNAMANAIDU	BIOTECH
32	221FA01079	ARJULA SRI SURYA KANTHI	BIOTECH
33	211FA14019	PAGADALA PREMITHA	BI
34	221FA01008	RITHIKA SURAPANENI	BIOTECH
35	221FA01083	POLAROWTHU SRI SWARNA LAKSHMI	BIOTECH
36	221FA01048	KOPPARTHI THARUNMAI	BIOTECH
37	221FA01083	POLAROWTHU SRI SWARNA LAKSHMI	BIOTECH
38	221FA01082	MATTA DOLA SAI NAGA DIVYA SRI	BIOTECH
39	221FA01023	TALLA SWATHI	BIOTECH
40	221FA01055	GUNDEPUDI KARTHIKEYA	BIOTECH
41	221FA01018	GANDHAM MAYUKHA SAI	BIOTECH
42	221FA14035	GRANDHI MINUSHA KOWSALYA	BI
43	221FA14078	JAJULA PRANATHI MALYA	BI
44	221FA01016	MAMILLAPALLI TEJASWI	BIOTECH
45	221FA01074	MUDRABOYINA JAGADEESH	BIOTECH

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A BOOK FROM YOU

Date:30.12.2023

Venue: Narakoduru, Chebrolu

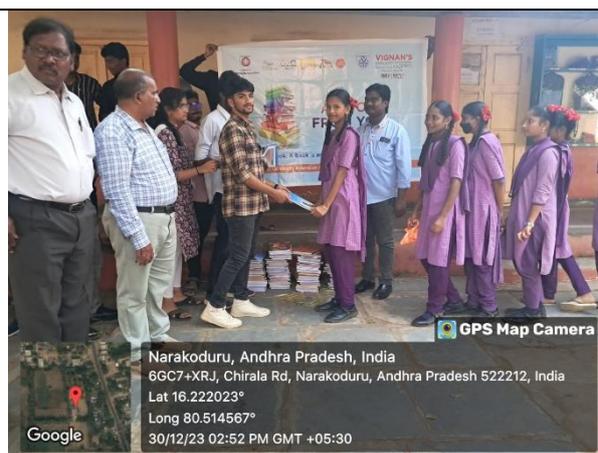
This event “A Book from You” was conducted in the indication of helping the School kids by the University on 30 Dec 2023 by the team UEAC.

This event is held once or twice a semester each year to donate books to the children to aid in their future education. At 2:00 PM, the ceremony took place at Narakoduru, Chebrolu. 65 members participated in this event in total. All of the first-year section coordinators, volunteers, vertical leads, and core members are included in this. A Book from You's goal is to gather books from students, which will then be given to the schools where the children are growing up and graduating, assisting them with their academic needs. Three hundred of the 600 books were given out to the kids at Narakoduru Z.P.H. School, and 300 notes were given to the pupils at SURYADEVARA GOVERNMENT.HIGH SCHOOL Chebrolu. The children received excellent cooperation from the school's headmaster. A total of 300 books—250 notes and 50 textbooks—were given to Suryadevaranarasiah High School pupils. According to Sir, A Book from You is a program that collects books to give to pupils in order to help them succeed. By



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sharing his expertise and engaging in several activities with the kids, our core team member Sankeerthan taught them how to speak in front of large crowds. Following Sankeerthan's insightful speech, many of the students in the classroom bravely moved to the front of the room. The Program commences with an assembly of NSS (Volunteers and coordinators) and at 1:30 PM the dividing of groups takes place according to their disciplines and each branch has contributed their efforts to make the “A Book from You” event successful. By the time of 4:00 PM, all are gathered at the V Tree for a small interaction with the NSS core team and an appreciation for the accomplishment of the event further proceeded by clicking a few photos and finally, everyone has been dispersed with a thank you note.



“A Book from You” on 30.12.2023

List of volunteers:

“A Book from You” on 30.12.2023			
S.No	Reg.No	Name of the Student	Branch
1	211FA04201	KAMMA MADHURI	CSE
2	231FJ01030	BOINA NAGA MARUTHI KRISHNA	BCA
3	231FA05235	PERAVALI SONIKA	ECE
4	221FA04503	GUJJU JOSEPH ANAND KUMAR	CSE
5	231FA05067	KOLLIPARA RISHITHA	ECE

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6	231FA04B90	UPPALAPATI SRI BHUVANA LAKSHMI	CSE
7	221FA04133	VANDANAPU RESHMA SUREKHA	CSE
8	211LA06017	CHIMAKURTHI THULASI MAHA LAKSHMI	EEE
9	231FA05298	DASARI PRIDHVI MANJUNADH	ECE
10	231FA04270	CHALICHAM DEEPAK CHOWDARY	CSE
11	211FA15019	PRANATHI CHANDRIKA PANCHAKARLA	FT
12	231FA18063	TAVVA JAGADISH	AIANDML
13	201FA05005	BOMMAGANTI KEERTHANA	ECE
14	211FW01062	KAMIINENI ADHITHYAA	BSC HONS
15	221FA04620	TATIREDDY HIMAJA REDDY	CSE
16	211FA08010	BUTHUKURI MANIKANTA REDDY	MECH
17	211FA04632	KANCHINADHAM SRI PRANATHI	CSE
18	221FA04070	PASUPULETI NITHYA	CSE
19	211LA22001	RAJANALA ANKARAO	TT
20	231FA04106	KANAMARLAPUDI SURYA CHANDRA GUPTHA	CSE
21	231FA16046	JAMM MAYIIK MICCHAR DENG	BM
22	211FA04424	PAMMI SOWJANYA	CSE
23	231FA23027	MALLINA SUSMITHA	DS
24	221FA18092	GUNTURU TEJASWINI	AIANDML
25	231FJ01064	SHAIK MOHAMMAD ATHEEF	BCA
26	231FW01001	AKKALA KUSUMA	BSC HONS
27	221FA04494	KOTHAPALLI VENKATA SAI SANDEEP	CSE
28	201FA05067	TANGALLAMUDI RAMA SAI	ECE
29	231FA05226	YALAVARTHI MADHURI	ECE
30	231FA19056	GANTA BHARGAVI	CSECS
31	231FD01074	LUKKA VENKATA SRI RAM	MCA
32	221FM01007	POTTURI SONU SAHANA	BSC
33	231FA20015	GALI ANIL KUMAR	CSBS
34	211FA04099	PUVVADA SOUMYA	CSE
35	231FJ01042	MATTA GNANA SAI SWARUP	BCA
36	231FA04838	KOYA NAVYA SRI	CSE
37	231FA04487	KOLLIPARA BHUVANA VENKATA LAKSHMI ANUJA	CSE
38	211FA05109	MUNNANGI HARI VARDHAN	ECE
39	231FA04433	AKKALA HEMANTH REDDY	CSE
40	231FK01042	JAMPANI SAI PRAVALLIKA	BBA
41	231FA16038	KAPULAPALLI LAKSHMI ASRITHA REDDY	BM
42	221FA04456	PARADAPARAPU MOKSHAGNA	CSE
43	231LA03003	PAYYAVULA SIVA SANKAR	CIVIL

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44	231FA14117	SHAIK TAYYABA TASNEEM	BI
45	221FA01043	KODURU JAHNAVI SAI DURGA	BIOTECH
46	201FA05016	GUDIBANDI AVINASH BHARGAV REDDY	ECE
47	221LA12016	JUVVA RAVALIKA	AG
48	221FJ01043	MOGASATI VENKATA VISHNU MURTHY RAJU	BCA
49	221FA04117	PASUPULETI YESUBABU	CSE
50	231FA04756	SAKALABHAKTULA KOUSHIK	CSE
51	201FA04274	POLU VIJAY SHEKAR REDDY	CSE
52	221FA07139	PERUMALLA SATYA VARUN	IT
53	231FA05072	ERUVURI VENKATA VASU REDDY	ECE
54	231FA14082	BAINENI JASWANTH SAI	BI
55	231FA14071	SHAIK SANA KOUSAR	BI
56	231FA04793	MOGILI GOPI CHAND	CSE
57	211FA04319	DHANASIRI KAVYA	CSE
58	221FW01130	PODILI SRI SAI GOPI KRISHNA	BSC HONS
59	221FA04156	KOTHURU VENKATA NAGA SAI KIRAN	CSE
60	231LA06033	MANNEM BALA ANIL KUMAR	EEE
61	231FA04272	ORSU LIKHITA PRIYA	CSE
62	211FJ01023	DEVARAPALLI SATHYA PRAKASH	BCA
63	201FA17006	MOHAMMAD FAIZAN RAZA	PE
64	221FA07120	GOLLAPUDI SHILPA	IT
65	211FK01076	RAVELLA HEMANTH SAI	BBA

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Awareness on Mental Health

Date: 06.01.2024

Venue: ZP High School Angalakuduru

Our adopted school, Angalakuduru, held a mental health awareness event for kids in various sectors of the school community on January 6, 2024. This event was attended by 40 students, along with section and chief organizers, coordinators, and a few volunteers. via teaching pupils about mental health.

Peer relationships, the academic setting, and social pressures may all have a big effect on students' mental health. Therefore, it is crucial to raise awareness and offer tools that support mental health in the educational environment. In any case, the attendees were really eager to make it a huge success. The importance of mental health was explained to the kids, and Establishing a welcoming and encouraging environment helps students talk about their emotions without worrying about being judged, including social, psychological, and emotional one's health. The government officials expressed gratitude for each stage of the program. The pupils were quite agitated by this incident.

Students got to know about the importance of mental health. They can yield numerous positive outcomes that contribute to their overall well-being in the future and stable minds towards their goals.

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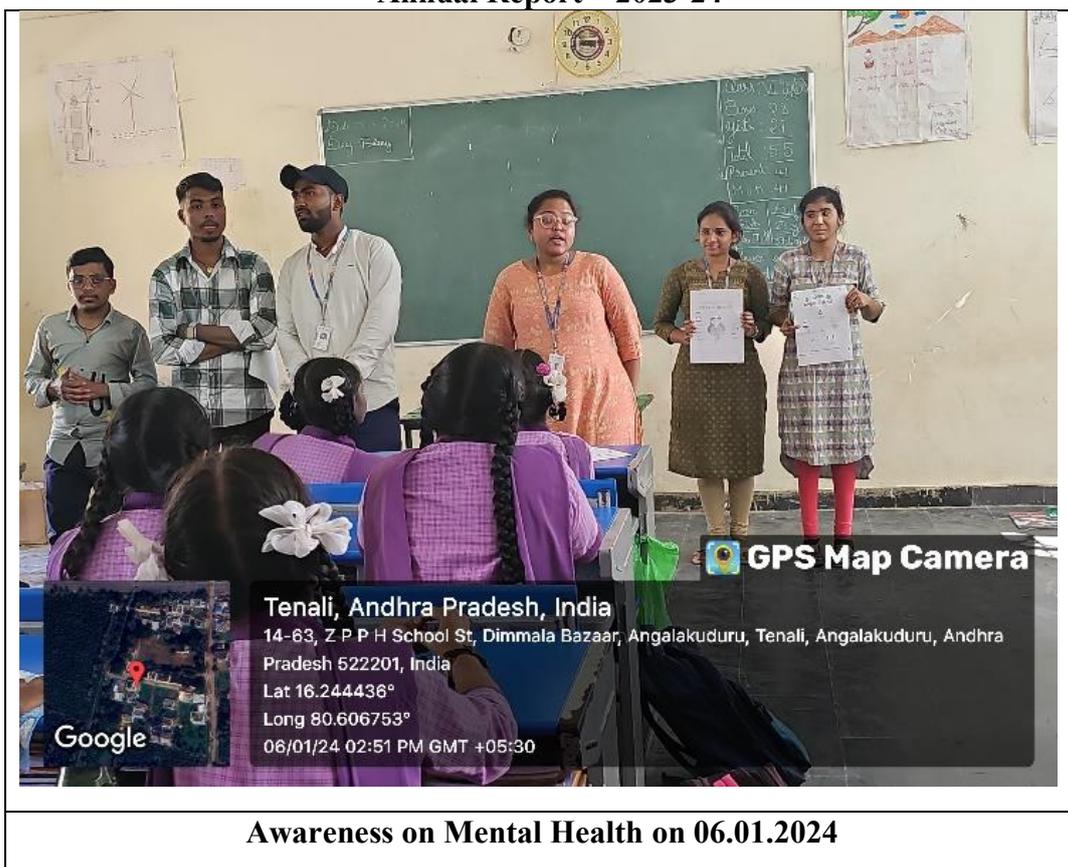
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**List of volunteers:**

Awareness on Mental Health on 06.01.2024			
S. No	Regd. No	Name	Branch
1	221FA01031	K. RAVEENA	BT
2	221FA01014	T. VASUNDHARA	BT
3	221FA01029	M. ASHRITHA	BT
4	221FA01004	AMRESH KUMAR	BT
5	221FA01053	TULASI VARANASI	BT
6	221FA01005	PRINCE KUMAR	BT
7	221FA01052	N. MEGHANA	BT
8	221FA01020	SUNNY KUMAR	BT
9	221FA01027	NITISH KUMAR	BT
10	221FA01001	SAKLEN RAZA	BT
11	221FA01010	M. PRAVALLIKA	BT
12	221FA01063	SUCHITHA SHARON	BT
13	221FA01104	J. TRIVENI	BT

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14	221FA01112	B.V. HEMAHARSHINI	BT
15	221FA01183	G.V.N. SANTHOSHI	BT
16	221FA01167	D. MADHAVI	BT
17	221FA01163	SK. HARSHAD	BT
18	221FA01136	A. CHANDRIKA	BT
19	221FA01112	HARSHINI	BT
20	221FA01146	HUSSAIN	BT
21	221FA01148	LALITHA	BT
22	221FA01164	SD. NAZIYA	BT
23	221FA01191	DIKSHA KUMARI	BT
24	221FA01206	MS. SAHIL	BT
25	221FA01152	MOKSHITHA	BT
26	221FA14047	S. GEETHIKA	BI
27	221FA14028	SK. HABIB	BI
28	221FA14049	R. YASAWI	BI
29	221FA14007	MAMATHA	BI
30	221FA14015	B. ALEKHYA	BI
31	221FA14020	R. HARSHITHA	BI
32	221FA14033	A. SOUMYA	BI
33	221FA14055	V. VAISHNAVI	BI
34	221FA14004	S. BHARGHAVI	BI
35	221FA14056	K. SATHWIKA	BI
36	221FA14037	V. SRI VARSHA	BI
37	221FA14054	K. SHOBHA RANI	BI
38	221FA14025	P. SUSANNAH JOY	BI
39	221FA14017	B. PRAVALLIKA	BI
40	221FA14003	M. SAMEERA	BI

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Awareness on COVID-19

Date: 06.01.2024

Venue: ZP High School Angalakuduru

On 6th January 2024 our adopted school Angalakuduru conducted an event on Awareness on COVID-19 among students in different parts of the school locality. The 40 students including section and chief organisers and coordinators and some volunteers participated in this event. By educating students about symptoms. It is essential to create awareness and provide resources that promote diseases within the school setting. Anyway, the participants were highly enthusiastic to make it a big success. The students came to know about the significance of symptoms and Creating an open and supportive atmosphere encourages students to discuss their feelings without fear of judgment like emotional, psychological, and social well-being. Every step of the programme was appreciated by the representatives of the administration. This event created a great stir among the students.

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**List of volunteers:**

Awareness on COVID-19 on 06.01.2024			
S. No	Regd. No	Name	Branch
1	221FA01031	K. RAVEENA	BT
2	221FA01014	T. VASUNDHARA	BT
3	221FA01029	M. ASHRITHA	BT
4	221FA01004	AMRESH KUMAR	BT
5	221FA01053	TULASI VARANASI	BT
6	221FA01005	PRINCE KUMAR	BT
7	221FA01052	N. MEGHANA	BT
8	221FA01020	SUNNY KUMAR	BT
9	221FA01027	NITISH KUMAR	BT
10	221FA01001	SAKLEN RAZA	BT
11	221FA01010	M. PRAVALLIKA	BT
12	221FA01063	SUCHITHA SHARON	BT
13	221FA01104	J. TRIVENI	BT
14	221FA01112	B.V. HEMAHARSHINI	BT
15	221FA01183	G.V.N. SANTHOSHI	BT
16	221FA01167	D. MADHAVI	BT

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17	221FA01163	SK. HARSHAD	BT
18	221FA01136	A. CHANDRIKA	BT
19	221FA01112	HARSHINI	BT
20	221FA01146	HUSSAIN	BT
21	221FA01148	LALITHA	BT
22	221FA01164	SD. NAZIYA	BT
23	221FA01191	DIKSHA KUMARI	BT
24	221FA01206	MS. SAHIL	BT
25	221FA01152	MOKSHITHA	BT
26	221FA14047	S. GEETHIKA	BI
27	221FA14028	SK. HABIB	BI
28	221FA14049	R. YASAWI	BI
29	221FA14007	MAMATHA	BI
30	221FA14015	B. ALEKHYA	BI
31	221FA14020	R. HARSHITHA	BI
32	221FA14033	A. SOUMYA	BI
33	221FA14055	V. VAISHNAVI	BI
34	221FA14004	S. BHARGHAVI	BI
35	221FA14056	K. SATHWIKA	BI
36	221FA14037	V. SRI VARSHA	BI
37	221FA14054	K. SHOBHA RANI	BI
38	221FA14025	P. SUSANNAH JOY	BI
39	221FA14017	B. PRAVALLIKA	BI
40	221FA14003	M. SAMEERA	BI

SVEEP

Date:08.01.2024

Venue: Vignan University

We the team UEAC have conducted the SVEEP event at VIGNAN University, Vadlamudi. Our UEAC volunteers have actively participated in the event. The main aim of the event is to encourage all eligible citizens to vote and make good decisions during elections.

The event was commenced by Sankeerthan and Vasanthi by emphasizing the importance of VOTE and it was further proceeded by Mani Deep and jashwitha. They welcomed Ms Rukmini, Mr Phaneendra Kumar, Mr K. Venkateshwarulu, Mr Lavu Rathaiah and Mr Gopal Krishna onto the dais.



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ETV branch district manager. Venkateshwaruluhave said about the history of the vote registrations and the importance of vote. In the past years the 1990's, people with more than 21 years are only allowed to vote and elect the leader. After a few years, 18 and more than 18 years are allowed to vote. "Every vote counts and everyone should vote".

The Chairman Dr. Lavu Rathaiah said that 2024 is the significant year, in which elections take place. Everyone has to register for the vote. We the young people should take responsibility and vote to elect the correct government, which can bring changes and make good for people and society. A total of 350 students of Vignan University participated in this event.

Mr. Gopal Krishna MRO of Chebrolu said about the voter registration and to give a chance for every citizen to vote compulsorily. Voters Apathy means not being responsible and respective to be a voter. Ethical Voting means the leaders who pursue their votes with money.

Dr. Phaneendra Kumar (Lara Principal) talked about the importance of vote and that everyone must utilize their vote.



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Enrolment of vote at Vignan University on 08.01.2024

List of volunteers:

SVEEP ON 08.01.2024			
S. No	Reg. No	Name of the Student	Branch
1	211FA05109	MUNNANGI HARI VARDHAN	ECE
2	221FA14069	SHAIK NADEEM	BI
3	201FA07049	BAVIRISETTY PRASANNA KUMAR	IT
4	211FA04382	VAJRALA SRI CHANDANA	CSE
5	201FA07069	RASAMSETTY G V L BHARATH	IT
6	231FA04339	UDDANDA CHAKRAVARTHI	CSE
7	231FA04487	KOLLIPARA BHUVANA VENKATA LAKSHMI ANUJA	CSE
8	221FA04282	TADIKONDA BHAGAT SAI	CSE
9	211FA05065	BHIMINENI HEMA CHANDRA	ECE
10	231FK01095	MUTHINENI CHAITANYA	BBA
11	181FA01142	KASULA VENKATA SAI KUMAR RAJA	BIOTECH
12	231FA16041	KUDULLA BHAGYA SRI	BM
13	231FA23027	MALLINA SUSMITHA	DS
14	231FA18171	RAJULAPATI NIKHIL	AIANDML
15	231LA12011	KANCHARLA SAHITHI	AG
16	201FA17006	MOHAMMAD FAIZAN RAZA	PE
17	221FA01059	POTHUGANTI GULNAZ MABUNNI	BIOTECH
18	231FA04756	SAKALABHAKTULA KOUSHIK	CSE
19	221FA04370	EDA SAI NITHIN REDDY	CSE

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20	231FC01084	KUKKALA POOJITHA	MBA
21	211FA07072	GADE GOWTHAM SAI	IT
22	231FA14026	DONTHU SUMA JOSHNA	BI
23	211FA07022	POPURI SRIHARIKA	IT
24	201FA15044	PALLAMPARTHY SRI VARDHAN REDDY	FT
25	231FK01066	VADRANAM POORNA BALAJI	BBA
26	231FA18400	YEPURI REVANTH	AIANDML
27	221FA01122	MINNA GRISHMA	BIOTECH
28	221FA07120	GOLLAPUDI SHILPA	IT
29	221FA04381	MAKHAM BALA LAKSHMI SUJITH	CSE
30	231FA04626	BELLAM SAI CHARAN	CSE
31	221FA07038	GODAVARTHI SASI NAGA VENKATA PADMA VASAVI	IT
32	231FA07058	TALLA NAGA MALLESWARA RAO	IT
33	211FK01115	YEPURI VIJITHA	BBA
34	211FA14040	VELLANKI RAGHU RAM	BI
35	231FA05122	BANDARU NAGA SREEKAR	ECE
36	211FA05111	YARLAGADDA RAMYA SHREE	ECE
37	221FA14075	SHAIK FUZEL AKTHER	BI
38	221FA04724	PITLA MANOHAR	CSE
39	231FA04444	POLISSETTY JHANSI PRASANNA LAKSHMI	CSE
40	221FA05187	DOSAKAYALA AKHILA	ECE
41	201FA04334	KONDRAGUNTA NEHA	CSE
42	231FA18289	ALAPATI MEGHANA	AIANDML
43	211FA07075	DIRISINALA NAGA VARDHINI	IT
44	211FA04040	MANDADHI ALEKHYA	CSE
45	221FA05221	MONDITHOKA SOWMYA	ECE
46	231FA18398	GUNA GOUTHAMI	AIANDML
47	231FA04E08	EPPALA TEJA SRI	CSE
48	211FA04080	BURRI SAHITHI	CSE
49	231FA18299	LELLA GEYA VARDHINI	AIANDML
50	231FA04B40	PALEPU M N V SAI RANGA PRABHA	CSE
51	231FA06039	MAZANI KUDAKWASHE BLESSED	EEE
52	221FA18130	JASTI RAMAKRISHNA	AIANDML
53	221FW01118	NETHULA VENKATA RAVALI	BSC HONS
54	231FA04263	DANTHULURI LOKESH BABU	CSE
55	231FA01123	DUMPA PRANAYA SREE	BIOTECH
56	221FA23011	PALAPARTHI SHARON SUKEERTHANA	DS
57	231FA04962	KANAKAM DIVYENDRA	CSE
58	211FJ01041	NIKITHA BEERAM	BCA

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59	231FA04614	SAYED NAYEEM	CSE
60	211FA04319	DHANASIRI KAVYA	CSE
61	231FA04455	THUMMA YUVA KIRAN REDDY	CSE
62	221FD01021	DUNDI KATHYAYANI REDDY	MCA
63	211FA18018	SIDDAMSETTI VAMSI KRISHNA	AIANDML
64	231FA04C12	JASTHI PAVITHRA	CSE
65	231FA04C10	BOBBELLA GANESH	CSE
66	211FA19026	GURIVINDAPALL BHANU PRAKASH	CSECS
67	211FK01003	ANGILIKA KRITHIKA	BBA
68	231FA05152	DONDAPATI LEELA VINOD KUMAR	ECE
69	211FA04641	PARISA KUMAR RAJA	CSE
70	231FA04001	SANKEPELLI SAMEERA	CSE
71	221FA14085	VUYYURU KESAVI HIMABINDHU	BI
72	221FA05081	PAREPALLI LIKITH	ECE
73	231LA05015	KONDAVEETI ANITHA	ECE
74	201FA04361	KUNCHALA RAVI KIRAN REDDY	CSE
75	231FA04833	KODALI HEMANJALI	CSE
76	211FA05046	MODUGAVARAPU SAI VINEETH	ECE
77	201FA07057	KAKANI NAVYA SRI	IT
78	231FJ01049	ODIGA BAJI BABU	BCA
79	231FA07027	DASARI VENKATA SRIKANTH	IT
80	221LA05013	THOTA ROHITHSAI	ECE
81	231FA18442	NICHENAKOLLA VEERENDRA CHAKRI	AIANDML
82	231FA04821	CHAKRAVARAM UMA CHANDRA SEKHARA RAJU	CSE
83	201FA02006	PURUSHOTAM KUMAR	CHEM
84	231FA03020	MUKOTAMI TADIWA	CIVIL
85	231FW01024	JAMMULA AMRUTHA SOWDHAMINI	BSC HONS
86	231FA04281	BHIMAVARAPU KAVYA REDDY	CSE
87	221FA04117	PASUPULETI YESUBABU	CSE
88	221FK01063	PONNEKANTI CHARAN PAVAN	BBA
89	211FA15022	P.S.V.N.SRINIVAS	FT
90	231FA04C72	RAMINENI KAILASH	CSE
91	231FA04F53	GUDE LAKSHMI VENKATA HARSHITHA	CSE
92	211FA04390	PARIMI VENKATA SAI YOGESWAR	CSE
93	231FA04A45	MUKKU SAI PREETHI	CSE
94	211FA07089	TIRUNAGARI VENKATA GOPI KRISHNA	IT
95	221FA05088	VEERANKI SIVA NAGA PHANINDRA	ECE
96	201FA07076	RAUSHAN KUMAR MAURYA	IT
97	221FD01062	TALLAM SRI VYSHNAVI	MCA

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98	221FA01087	SURE LAKSHMI SAI SREE	BIOTECH
99	201FA15074	CHINTA JYOTHI JAYAWARDHAN	FT
100	231FJ01042	MATTA GNANA SAI SWARUP	BCA
101	231FA23048	KAKUMANU KALANJALI	DS
102	211FA05268	YANGALASETTY SAI KUMAR	ECE
103	221FA18052	SANDHU BHARAT SAI	AIANDML
104	221FJ01010	BAPATLA SOMESWAR	BCA
105	231FA04159	TUPAKULA SRIKANTH	CSE
106	231FA04A78	KALLAGUNTA VENKATA LAKSHMI	CSE
107	231FA14018	YERUVA NEEHA MOHAN REDDY	BI
108	231FA05116	KOMATIGUNTA YAMUNA	ECE
109	231FA04288	TIRUKKOVALLURI MONALISA	CSE
110	201FA01105	BATTULA DHARANI	BIOTECH
111	221FA07020	JONNADULA DIVYA SRI	IT
112	221FA07089	JAKKAM LAVANYA	IT
113	231FA05033	JASTI UDAY TEJA	ECE
114	231FA03019	MATUMIKA ANASHE CHANTELE	CIVIL
115	211FA04400	MULE RAMANJANEYULU	CSE
116	231FA07062	POLINA VIJAYENDRA BABU	IT
117	201FA16030	TENALI JASWANTH	BM
118	221FA04534	MODEM LAASYA	CSE
119	221FA05034	VARIKALLU ANKARAO	ECE
120	231FA06041	NYANZERO SHAME	EEE
121	231FC01129	KARRI BHARGAVI	MBA
122	231FA07131	MOHAMMAD AMEEN HUSSAIN	IT
123	211LA06017	CHIMAKURTHI THULASI MAHA LAKSHMI	EEE
124	211FA07138	SAI NITHEESH BIKKASANI	IT
125	211FA06023	CHALLA VENKATA GIRISH	EEE
126	221FA06012	SUNKARA EESWARA REDDY	EEE
127	221LA08009	TADIBOYINA SAI BHARATH	MECH
128	211FA05289	NEELAM PHANEENDRA SAI	ECE
129	201FA04326	INDALA JYOTHIRMAYEE	CSE
130	211FA05097	YAMARTHI UMA MAHESWARARAO	ECE
131	231FA04077	SAI SREEJA GUJJIDI	CSE
132	231FA03013	CHIKWIRI GEORGE TAFARA	CIVIL
133	231FW01001	AKKALA KUSUMA	BSC HONS
134	201FA01075	KASARLA NARSI REDDY	BIOTECH
135	211FA06036	CHATTI GURU SAI KUMAR	EEE
136	221FA04503	GUJJU JOSEPH ANAND KUMAR	CSE
137	221FA04063	VANKA BHUVANA SAI MOUNEENDRA	CSE

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138	231FW01091	CHIRADZA EMMANUEL ELIAS	BSC HONS
139	231FC01025	VEERANKI PAVANI	MBA
140	211FW01007	KOTIKALAPUDI SUHAS PAUL	BSC HONS
141	231FA04A86	TEJESH PERAM	CSE
142	231FA18015	POTTURI VENKATA SATYA SAI MANI KUMAR	AIANDML
143	231FA04007	PALLAPOTHU VINAY	CSE
144	221FW01050	KALAM HEMANTH REDDY	BSC HONS
145	231FA04A71	DUNDI SAINADH REDDY	CSE
146	221FA04342	P D S V KARTHIKEYA	CSE
147	231FA04713	THIGURI NAGA MOHAN REDDY	CSE
148	221FA18092	GUNTURU TEJASWINI	AIANDML
149	221FA05225	CHERUKUMALLI SAI RAM	ECE
150	211FA06003	KODURU HARIKA NAGA LAKSHMI PRIYA	EEE
151	211FM01012	GUDAPATI MOUNIKA LAKSHMI DURGA	BSC
152	231FA14082	BAINENI JASWANTH SAI	BI
153	231FA18249	KOMMANABOINA SUDHEER KUMAR	AIANDML
154	201FA04202	CHITTURI YESWANTH	CSE
155	231FA04383	KAMINENI PREM KUMAR	CSE
156	211FA04220	CHINTHAPALLI BHAVANA CHOUDARY	CSE
157	221FA04726	KUMBALA AJAY KUMAR	CSE
158	211FM01058	ENDLA DIVAKAR REDDY	BSC
159	231FA04A21	MAGULURI DIVYA SRI	CSE
160	221FA21003	MANCHINA SIVA BHARGAV	RA
161	211FA04426	VUDUTHA LIKITHA	CSE
162	231FA04132	PARABATHINA RAHUL BABU	CSE
163	231FC01117	MORLA PAVAN	MBA
164	221FA04498	NALLAGORLA BHARGAVI	CSE
165	231FA01132	MERAZ ALI	BIOTECH
166	221FA05083	SHAIK SAI BASHA	ECE
167	231FA14092	DUGGEMPUDI AKHIL REDDY	BI
168	221FA04698	PEDDI AMRUTHA NAGA VALLI	CSE
169	231FA04F17	SHAIK SAMEERA	CSE
170	221FA05143	MATTAPARTHI VENKATESH	ECE
171	221FA01027	NITISH KUMAR	BIOTECH
172	211FA04424	PAMMI SOWJANYA	CSE
173	231FA05223	SOMAROUTHU D APARNA	ECE
174	211FJ01075	GUDE HARIKA	BCA
175	201FA01030	MIRIYALA SAHITHI SREE	BIOTECH
176	231FW01089	CHIKOTO TAPIWANASHE MUNMARADZI	BSC HONS
177	211FA04134	RAHUL CHANDRA	CSE

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178	201FA05067	TANGALLAMUDI RAMA SAI	ECE
179	211FK01056	MODUGU NITHIN KUMAR	BBA
180	221FC01053	KONDA KAVITHA	MBA
181	221FA04146	KARUMANCHI JASWANTH TULASI NADH	CSE
182	231FA04557	GADIPARTHI ESWARI	CSE
183	211FM01033	SANAM PRAVALLIKA	BSC
184	231FA01002	MANCHIKALAPUDI PRANEETHA CHOWDARY	BIOTECH
185	201FA01120	MALLEMKONDU VENKATA SAI SUMA SRI	BIOTECH
186	211FW01051	VEMPARALA NAVYA SRI	BSC HONS
187	221FA04736	PRATYUSH KUMAR	CSE
188	221FA01164	SYED NAZIYA	BIOTECH
189	211FA05161	DODDI VENKATA ANAND DWEEPAK	ECE
190	211FA04261	MANDELA KESAVA SAI MANIKANTA	CSE
191	231FK01101	DASARI HIMAGIRI	BBA
192	211FA04034	LINGINENI LAKSHMI SOWJANYA	CSE
193	231FA14117	SHAIK TAYYABA TASNEEM	BI
194	231FA01034	KANDI SHIVANI	BIOTECH
195	231FA04G63	NITISH KUMAR	CSE
196	211FW01044	TADIGIRI RATNA KUMARI	BSC HONS
197	231FA05234	VEMULA V S S LAKSHMI DURGA SNEHITHA	ECE
198	231FA05257	VANUKURI LAKSHMI SIVA PARVATHI	ECE
199	231FA04989	PAIDIMARRY BHAVYA SRI	CSE
200	221FD01032	KANAKAM SAI PREETHI	MCA
201	211FA06010	VEMULA CHARAN	EEE
202	231FM01002	KURRA HARSHA VARDHAN	BSC
203	221FW01115	PULICHARLA PRAVALIKA	BSC HONS
204	201FA04110	MUNDLAMURI AKHIL CHOWDARY	CSE
205	221FA04658	MALLADI POOJITHA	CSE
206	211LA10005	ATTHOTA ABHINAVA MANIKANTA CHOWDARY	AME
207	221FA01099	UPPALA VARSHITHA	BIOTECH
208	231LA22003	KONDLAPALLI GOWTHAM	TT
209	231FA23021	KATURI BHARGAVI	DS
210	221FC01133	AADURI PAVAN NAGA VENKATA SEKHAR	MBA
211	231FA04793	MOGILI GOPI CHAND	CSE
212	201FA15080	GOPALAPPAGARI UDAY	FT
213	201FA15054	SYED RIYAZ AHAMMED	FT
214	211FA04460	RAVIPUDI LAKSHMI PRASANNA	CSE
215	211FA21005	RAVINUTALA SREE SAI BHARGAV	RA
216	211LA22001	RAJANALA ANKARAO	TT

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217	201FA04294	EMANI.DURGA SRINIJA	CSE
218	211FA14010	SYAMALA AKASH	BI
219	231FA04067	ADDEPALLI SHANMUKHA PAVAN	CSE
220	221FC01027	YELURI ADITHYA MANIKANTA	MBA
221	231FA14033	MIDABALA SRINIVAS	BI
222	221FA04687	BALUSU DIVYA SNEHITHA	CSE
223	221FA04329	PEMMASANI SRI KRISHNA SAI	CSE
224	231FA04993	TADIKAMALLA VASAVI LAKSHMI SREE	CSE
225	231FA04F45	GORANTLA JAYA VARSHINI	CSE
226	231FA04162	JUJJURI DIVYA	CSE
227	231FC01157	GATTU MESSY ROYAL	MBA
228	211FW01020	EMULA BAJI BABU	BSC HONS
229	201FA04443	JANGALAPALLI HAMSINI	CSE
230	231FA04415	KUKATLA SRAVANI	CSE
231	201FA04020	MANJEERA BOLISSETTY	CSE
232	231LA03003	PAYYAVULA SIVA SANKAR	CIVIL
233	221FA01102	VADLAMANNATI AKSHAYA	BIOTECH
234	221FA05079	PANIDAPU VARUN KANTH	ECE
235	221LA12016	JUVVA RAVALIKA	AG
236	231FA07048	MUPPA KALYANI	IT
237	231FW01022	INDIRA THATHIVIKA DUPATI	BSC HONS
238	221FW01163	DHARMIREDDI TEJASRI	BSC HONS
239	211FK01094	SHAIK RIHAN	BBA
240	211FJ01079	MOHAMMAD SUHANA BIBI	BCA
241	221FW01130	PODILI SRI SAI GOPI KRISHNA	BSC HONS
242	231FK01034	PAKALAPATI NIHARIKA	BBA
243	211FA18010	JULURI SHIVA SAI	AIANDML
244	231FA04B25	NAGABHAIRAVA OSHITHA	CSE
245	201FA04275	PADMANABHUNI JEEVANI VENKATA NAGA SAI LAKSHMI	CSE
246	221LA06011	SHAIK GULAB SHA	EEE
247	231FA05235	PERAVALI SONIKA	ECE
248	231FA04274	GRANDHE THANUJA	CSE
249	221FA18011	MACHARLA LAKSHMI SRINIVASA BHARGAVA SAI	AIANDML
250	231FA04672	PATHURI SAICHANDH	CSE
251	211FA04210	PALADUGU JAYANTH	CSE
252	201FA04277	GONDRALA MANASA PRIYA MOUNIKA	CSE
253	221FA19012	DAMARACHARLA GEETHA HARIKA	CSECS
254	211FA04526	PALLAPU VAMSI	CSE

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255	201FK01118	OGIRALA TULASI RAMA KRISHNA CHAITANYA	BBA
256	231FC01018	PIRATLA RAVI TEJA	MBA
257	231FA04G81	KOMATIGUNTA YAMUNA	CSE
258	211FA18015	SEELAM RUCHITHA MAHI	AIANDML
259	221FA14065	RAYIDI SRI SAI CHINMAI	BI
260	221FA07123	KONDRAGANTI LOKESH CHOWDARY	IT
261	221LA12003	PANNALA KEERTHI SRI	AG
262	231FA04521	BOLISSETTY V N S K MAHALAKSHMI	CSE
263	221FA04738	AKSHAY KUMAR	CSE
264	231FA04G76	SHANKAR KUMAR	CSE
265	231FA04899	MULPURI MUKUNDA NAGA DATTA SARMA	CSE
266	231FA04433	AKKALA HEMANTH REDDY	CSE
267	211FA04520	DHANUKOTI UMA MAHESH	CSE
268	231FA18155	BOLLIMUNTHA SRI PAVAN	AIANDML
269	231FA18094	GANGAVARAPU DILEEP CHANDU	AIANDML
270	221FA04685	TIYYAGURA KARTHIKEYAN REDDY	CSE
271	221FA03001	NUKATOTI HANOKU	CIVIL
272	221FC01065	PASUPULETI MANIBABU	MBA
273	191FA05094	KAKARAPARTHI SESA RAO	ECE
274	221FA04725	ADITYA KUMAR	CSE
275	211LA06015	PATHAN MOHAMMED KHAN	EEE
276	201FA04425	PEDDOJU VENKATA NAGARAJUNA	CSE
277	231FA23065	NAGABHYRU KUMAR RAJU	DS
278	201FA19006	BADE RISHIKA	CSECS
279	231FA19085	KONDRAGUNTA JOSHIT SIMHA	CSECS
280	211FK01045	KOTA PRIYANKA	BBA
281	211FA06014	BACHHANABOINA SAI PUJITHA	EEE
282	211FA07007	NADIMPALLI MANI SALYA KUMAR	IT
283	231FA05093	VEDALA PRAGNYA SUMALYA	ECE
284	211FA07020	VENKATA SAI RAHUL VEMULURI	IT
285	231FA07122	CHEERABOINA LAKSHMI THIRUPATHAMMA	IT
286	211FA04627	GUMMUDU SUMALATHA	CSE
287	231FA04762	CHILAKALA DURGA SIVA DHANUSH	CSE
288	231FA04844	KARI POOJITHA	CSE
289	211LA05012	PEDDAPULI REVANTH KUMAR	ECE
290	231FA04426	PERAM SWAPNA SINDHU	CSE
291	211FM01031	POTTI KOTESWARI	BSC
292	211FA05257	SUNKARA DINESH KUMAR	ECE
293	221FA16036	MODALAVALASA HEMSUNDAR SAIRAM	BM

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294	221FA01007	SAWAN KUMAR DAS	BIOTECH
295	231FA04D29	GORANTLA ASRITHA	CSE
296	221FW01061	NANDAM PHANINDRA SUBHASH	BSC HONS
297	221FA04542	SANAGAPALLI S V K SIVA NAGA SAI	CSE
298	231FA05022	VENNAPUSA ANUGNA	ECE
299	211FA05145	RAMINENI GAYATHRI SAI	ECE
300	211FW01011	ANUMULA VENKATA RAMANJANEYULU	BSC HONS
301	201FA01117	KOYA TEJA	BIOTECH
302	221FA04223	KANDUKURI SIRISHA	CSE
303	211FA14061	SHARON KUMAR MUNAGATI	BI
304	221FA07098	KATTA VAISHNAVI	IT
305	231FW01070	BADUGU SWETHA	BSC HONS
306	231FA04B50	KOLLURU VEDA SRI SURYA SASANK	CSE
307	221FA06033	RAJNIKANT KUMAR	EEE
308	231FA07032	SOMAIHGARI PREM CHAND	IT
309	211FA04663	KUNDAN KUMAR JHA	CSE
310	201FA04099	JANGA NAGA VENKATA GANESH	CSE
311	211FA04374	EEVURI UMESH REDDY	CSE
312	231FA03018	MASVIKENI PRINCE BATSIRAI	CIVIL
313	211FA04620	GUNDAVARAPU KIRAN MARUTI RANGA SAI SRI	CSE
314	231FA04171	YERRIBOINA AMRUTHA	CSE
315	211FA04632	KANCHINADHAM SRI PRANATHI	CSE
316	231FA18390	KORUKONDA HIMA BINDU	AIANDML
317	231FA19062	BETHALA SUPRIYA	CSECS
318	201FA04355	AYINAMPUDI NAGA SRIVALLI	CSE
319	231FC01102	MUSKAN KUMARI JAISWAL	MBA
320	211FA14036	GORANTLA BALA SARASWATHI	BI
321	221FA23043	DONDETI KOUSHIK REDDY	DS
322	231FK01102	NIDAMANURI SRAVANTHI	BBA
323	221FA04493	VUYYURU HEMANTH	CSE
324	231FA14106	BARAMA NAGA PRAGATHI	BI
325	231FA21010	GANAPA ADILAKSHMI	RA
326	221FA05188	MUNIPALLI AVINASH	ECE
327	221FA01017	VELAGA LIKHITHA GAYATHRI	BIOTECH
328	231FA07086	PARASARAM HANUMANTH SRI VATSAVA	IT
329	231FA14112	MOHAMMED FATHIMA KHAN	BI
330	221FA18131	GURRALA RAGHU VARDHAN	AIANDML
331	221FA04245	NAYUDU SARANYA	CSE
332	201FA05016	GUDIBANDI AVINASH BHARGAV REDDY	ECE

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333	231FJ01064	SHAIK MOHAMMAD ATHEEF	BCA
334	211FA04582	VARANASI N V SIVA LAKSHMI NARAYANA	CSE
335	211FA04120	MANDALA ABHISHEK	CSE
336	211LA03005	VALLEPU DURGA	CIVIL
337	231FA18402	TAVITI JWALA NARASIMHA	AIANDML
338	231FA18275	MODEM RUTHWIK	AIANDML
339	211FA08007	BATTULA KALYAN RAM	MECH
340	221FA04182	AVULA ASRITHA	CSE
341	221FA23005	GEETHA M	DS
342	231FA05183	MAKUTAM LAKSHMI DURGA JYOTHI	ECE
343	221FJ01047	MOHAMMED AHMED KHALID AHMED	BCA
344	211FA04128	ANNAM JAYASRI	CSE
345	201FA14002	SURASANI VARUN KUMAR REDDY	BI
346	231FA04722	VEMPA VASANTHI	CSE
347	231FA23112	GOPISETTI HEMASAIDEEPTHI	DS
348	231FC01145	TAMMA VINAY KUMAR REDDY	MBA
349	211FA08032	KATLA NITIN ASRITH	MECH
350	231FA05072	ERUVURI VENKATA VASU REDDY	ECE

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**University Extension Activity Council (UEAC)
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SWATCH VIGNAN**

Date: 20.01.2024

Venue: Vignan university

We the team UEAC have conducted a “Swatch Vignan” event on 20-Jan-2024 to inculcate the habitat of cleanness and hygiene maintenance. The main motto of the event is to bring awareness among the students about cleanness and its importance.

This event had been a regular occurrence every week in different parts of the university, it was unique because, for the first time, it encompassed all the university blocks. The event was started by 2:00 PM with the presence of all the core team, vertical leads, vertical members, section coordinators and volunteers. This includes around 472 members from different departments. The Objective of the cleanliness drive is to get rid of all the non-biodegradable waste like plastic covers, plastic straws, rubbers, toxic substances, fibres and thermocouples and clean university premises.

Our UEAC team members including the core team, vertical leads, vertical members, section coordinators and volunteers gathered in college. They have divided into groups and take place according to their disciplines of the branches and each group has contributed their efforts to make the university clean. Dr Vijaybabu Plukuri UEAC Programme Officer, Mr. Suresh Babu UEAC Coordinator addressed the people gathered near A-block and H-block. Mr. Badhar Saheb Faculty coordinator from the CSE department joined to assist the students near N-block. Dr Veeranjineyulu, 1st-year faculty co-ordinator addressed the A block student. L. Ashish Kumar Law department faculty co-ordinator addressed the U block students. The event started at 2:30 PM. Finally, the event was completed at 4:00 PM.



“Swatch Vignan” Event in Vignan University

List of volunteers:

SWACHH VIGNAN on 20.01.2024			
S. No	Reg. No	Name of the Student	Branch
1	211FM01058	ENDLA DIVAKAR REDDY	BSC
2	201FA04462	ARIMANDA DHEERAJ REDDY	CSE

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3	221FJ01047	MOHAMMED AHMED KHALID AHMED	BCA
4	201FA04170	TIRUMALASETTY PAVAN KUMAR	CSE
5	211FW01011	ANUMULA VENKATA RAMANJANEYULU	BSC HONS
6	231FC01119	KANCHUGANTLA SRINIVAS GOPI	MBA
7	231FA23040	BOYIDI NAGA AKSHAYA	DS
8	231FA04F05	ALA TANUJA	CSE
9	181FA01142	KASULA VENKATA SAI KUMAR RAJA	BIOTECH
10	211FA04632	KANCHINADHAM SRI PRANATHI	CSE
11	191FA05094	KAKARAPARTHI SESA RAO	ECE
12	231FA14011	GUDAPATI GNANA AASRITHA	BI
13	201FA05076	DONTHINENI SIVA KRISHNA	ECE
14	221FK01094	SUMI KUMARI	BBA
15	211FJ01023	DEVARAPALLI SATHYA PRAKASH	BCA
16	231FA05304	AMAN KUMAR RAI	ECE
17	231LA06003	VADUPU DURGA DINESH	EEE
18	221FA05096	VASIMALLA PRABHAS	ECE
19	231FA04C72	RAMINENI KAILASH	CSE
20	221FA04736	PRATYUSH KUMAR	CSE
21	231FW01095	MANGUNDU TANAKA	BSC HONS
22	201FA19006	BADE RISHIKA	CSECS
23	201FA04267	GADIYAMULA SIVA GANESWARA RAO	CSE
24	211LA03005	VALLEPU DURGA	CIVIL
25	211FW01020	EMULA BAJI BABU	BSC HONS
26	221FD01032	KANAKAM SAI PREETHI	MCA
27	231FA01044	ELETI BENSON	BIOTECH
28	231FJ01030	BOINA NAGA MARUTHI KRISHNA	BCA
29	221FW01061	NANDAM PHANINDRA SUBHASH	BSC HONS
30	201FA01093	UPPUTURI SYAM KUMAR GUPTA	BIOTECH
31	231FA23096	YERUVA VENKATA SATISH KUMAR REDDY	DS
32	221FA04530	NOMINI BALA PRASANA BOPANA	CSE
33	221FA04685	TIYYAGURA KARTHIKEYAN REDDY	CSE
34	231FA18390	KORUKONDA HIMA BINDU	AIANDML
35	221FA07089	JAKKAM LAVANYA	IT
36	211FA18132	MENDU SRAVANTHI	AIANDML
37	231FA18442	NICHENAKOLLA VEERENDRA CHAKRI	AIANDML
38	221FA05060	PERAM TANUJA	ECE
39	231FW01039	MANTRIPRAGADA LALITHA BALA TRIPURA SUNDARI	BSC HONS
40	231FA03018	MASVIKENI PRINCE BATSIRAI	CIVIL

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41	231FA04871	JONNADULA ABHIRAM	CSE
42	231FA04B95	SHAIK MUZEEF	CSE
43	211FA05111	YARLAGADDA RAMYA SHREE	ECE
44	231FA04207	THIPPAREDDY YASHASWINI	CSE
45	231FA18062	PRAGADA KUMAR	AIANDML
46	231FW01050	PORANKI DHYAN SAI SRI	BSC HONS
47	211LA05012	PEDDAPULI REVANTH KUMAR	ECE
48	221FA05041	CHATRA SRAVANI	ECE
49	231FA23091	KOYA JHANSI	DS
50	221FA01059	POTHUGANTI GULNAZ MABUNNI	BIOTECH
51	201FA04425	PEDDOJU VENKATA NAGARAJUNA	CSE
52	201FA04099	JANGA NAGA VENKATA GANESH	CSE
53	231FK01042	JAMPANI SAI PRAVALLIKA	BBA
54	221FA04381	MAKHAM BALA LAKSHMI SUJITH	CSE
55	201FA01092	PERUMALLA PRADEEPTHI NAVYA	BIOTECH
56	221FA14085	VUYYURU KESAVI HIMABINDHU	BI
57	211FA04431	MANDADAPU HRUSHIKESH	CSE
58	231FA18413	GUDE MADHU	AIANDML
59	231FA04844	KARI POOJITHA	CSE
60	231FA06041	NYANZERO SHAME	EEE
61	221FA18057	BANDLAMUDI MOUNIKA	AIANDML
62	221FA14031	SHRUTI KUMARI	BI
63	231FK01101	DASARI HIMAGIRI	BBA
64	231FJ01064	SHAIK MOHAMMAD ATHEEF	BCA
65	221FA15025	MOHAMMED IRFAN	FT
66	231FA04F53	GUDE LAKSHMI VENKATA HARSHITHA	CSE
67	231FA04672	PATHURI SAICHANDH	CSE
68	221FJ01044	MOHAMED ADAM HASSAN ADAM	BCA
69	211FA04451	SRUNGAVARAPU HARSHA VARDHAN	CSE
70	211FA04602	JETTI SUBHASHINI	CSE
71	221FW01130	PODILI SRI SAI GOPI KRISHNA	BSC HONS
72	231FA04G76	SHANKAR KUMAR	CSE
73	231FA18094	GANGAVARAPU DILEEP CHANDU	AIANDML
74	221FA18080	KAKUMANU VENKATA LAKSHMI ANJALI TEJASWI	AIANDML
75	211FA18010	JULURI SHIVA SAI	AIANDML
76	231FA01078	RUDRARAJU NEHA SRI	BIOTECH
77	221FA04118	SHIVAM KUMAR	CSE
78	201FA07057	KAKANI NAVYA SRI	IT
79	231FW01024	JAMMULA AMRUTHA SOWDHAMINI	BSC HONS

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80	221FJ01010	BAPATLA SOMESWAR	BCA
81	231FA04171	YERRIBOINA AMRUTHA	CSE
82	211FA04084	MOVVA VENKATESH	CSE
83	201FA07069	RASAMSETTY G V L BHARATH	IT
84	231LA05024	KADADALAPU VENKATA SIVA TEJA	ECE
85	211FW01044	TADIGIRI RATNA KUMARI	BSC HONS
86	211FA04077	JONNALAGADDA M V LAKSHMI HARSHITHA	CSE
87	221FA04603	GNANESHWAR REDDY DONTIREDDY	CSE
88	211FA04134	RAHUL CHANDRA	CSE
89	231FA14106	BARAMA NAGA PRAGATHI	BI
90	221FA04658	MALLADI POOJITHA	CSE
91	231FA05251	SHAIK FAYAZ	ECE
92	231FA04626	BELLAM SAI CHARAN	CSE
93	231FA04A82	ALLAM VARSHINI	CSE
94	231LA05015	KONDAVEETI ANITHA	ECE
95	211FA04099	PUVVADA SOUMYA	CSE
96	221FA14088	PATTIPATI JAI VENKAT	BI
97	211FA04116	JAMPANI BHAVYASREE	CSE
98	221FA01087	SURE LAKSHMI SAI SREE	BIOTECH
99	221FC01027	YELURI ADITHYA MANIKANTA	MBA
100	231LA05026	PALLAPOTHU KIREETI	ECE
101	221FA01043	KODURU JAHNAVI SAI DURGA	BIOTECH
102	201FA04289	BONAM PRAVEEN KUMAR	CSE
103	231LA03003	PAYYAVULA SIVA SANKAR	CIVIL
104	231FA04945	ARUMALLA SIRIVENNALA	CSE
105	221FA01138	KROVI VENKATADATTASAI MADHUNANDHANAABHIRAM	BIOTECH
106	231FA04878	KASSETTY LOHITH KUMAR	CSE
107	211FA04620	GUNDAVARAPU KIRAN MARUTI RANGA SAI SRI	CSE
108	231FC01117	MORLA PAVAN	MBA
109	211FA04426	VUDUTHA LIKITHA	CSE
110	231FC01023	KOPPURAVURI CHAITANYA SAI RAM	MBA
111	231FA20010	AMARTALURU SRUJEETH GUPTA	CSBS
112	211FA04220	CHINTHAPALLI BHAVANA CHOUDARY	CSE
113	211FA04475	ANUSHKA	CSE
114	211LA05038	SANIKOMMU SRIKANTH REDDY	ECE
115	231FA16046	JAMM MAYIIK MICHAR DENG	BM
116	231FA04281	BHIMAVARAPU KAVYA REDDY	CSE
117	211FA05289	NEELAM PHANEENDRA SAI	ECE

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118	201FA04213	AVULA HARIKA	CSE
119	221FK01063	PONNEKANTI CHARAN PAVAN	BBA
120	211FA19009	GOGADA JYOTHI SUBRAHMANYAM SAI	CSECS
121	231FA18289	ALAPATI MEGHANA	AIANDML
122	231FA07113	APPIDI SAI KUMAR REDDY	IT
123	221FJ01043	MOGASATI VENKATA VISHNU MURTHY RAJU	BCA
124	221FW01118	NETHULA VENKATA RAVALI	BSC HONS
125	231FA01132	MERAZ ALI	BIOTECH
126	221FC01096	SYED KARISHMA KAREEM	MBA
127	201FA07068	KATI KI KALESWARAMMA	IT
128	221FA04620	TATIREDDY HIMAJA REDDY	CSE
129	221FA04265	TADIKAMALLA SOWMYA SRI	CSE
130	231FA04614	SAYED NAYEEM	CSE
131	211FA18053	MUPPALLA SOWMYA	AIANDML
132	211FA01062	BURRI GANESH	BIOTECH
133	221FA18045	KORRA VENKATA KRISHNA NAGA MANIKANTA	AIANDML
134	221FA07139	PERUMALLA SATYA VARUN	IT
135	221FA04073	BELLAMKONDA CHAITANYA NANDINI	CSE
136	211FM01031	POTTI KOTESWARI	BSC
137	231FA18275	MODEM RUTHWIK	AIANDML
138	231FA19056	GANTA BHARGAVI	CSECS
139	211LA06023	THOTA INDU	EEE
140	231FW01048	PATHAN SAMEENA KHANAM	BSC HONS
141	221FA04282	TADIKONDA BHAGAT SAI	CSE
142	221FA05225	CHERUKUMALLI SAI RAM	ECE
143	201FA18009	SANAGALA BHAVANA	AIANDML
144	231FA23027	MALLINA SUSMITHA	DS
145	221FA04066	GUDAPATI PUJITHA	CSE
146	221FA18130	JASTI RAMAKRISHNA	AIANDML
147	231FA05033	JASTI UDAY TEJA	ECE
148	211LA06015	PATHAN MOHAMMED KHAN	EEE
149	211FM01012	GUDAPATI MOUNIKA LAKSHMI DURGA	BSC
150	201FA04326	INDALA JYOTHIRMAYEE	CSE
151	231FA04F10	JAMMULA BHANU TEJA	CSE
152	211FA04390	PARIMI VENKATA SAI YOGESWAR	CSE
153	211FA04590	VISSA RAJA SAI SUMANTH	CSE
154	231FA18450	DIVI GOWTHAM CHOWDARY	AIANDML
155	231FA04D54	KATTIKA KARTHIK VARMA	CSE

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156	201FA14002	SURASANI VARUN KUMAR REDDY	BI
157	211LA08017	SHAIK SHAKEEL	MECH
158	221FA07098	KATTA VAISHNAVI	IT
159	221FA14065	RAYIDI SRI SAI CHINMAI	BI
160	201FA07049	BAVIRISETTY PRASANNA KUMAR	IT
161	221FA23043	DONDETI KOUSHIK REDDY	DS
162	231FA04339	UDDANDA CHAKRAVARTHI	CSE
163	231FA04426	PERAM SWAPNA SINDHU	CSE
164	211FA08007	BATTULA KALYAN RAM	MECH
165	211FA04049	JAMIGUMPULA MANIKANTA	CSE
166	201FA14016	CHIRALA SRAVANI	BI
167	211FW01007	KOTIKALAPUDI SUHAS PAUL	BSC HONS
168	211FA04034	LINGINENI LAKSHMI SOWJANYA	CSE
169	211FK01115	YEPURI VIJITHA	BBA
170	211FA07054	KATARU VEERA SHANMUKA	IT
171	221FA05199	NAGUMOTHU ROSHINI	ECE
172	221FC01125	CHANDOLU MANIDEEP	MBA
173	211FA01018	GOBATTINI CHANDANA	BIOTECH
174	231FA18402	TAVITI JWALA NARASIMHA	AIANDML
175	231FA14033	MIDABALA SRINIVAS	BI
176	221FA23062	TUMMALA SOMASEKHAR	DS
177	221FA04698	PEDDI AMRUTHA NAGA VALLI	CSE
178	201FA01072	MADALA HIMA SRI	BIOTECH
179	221FA23011	PALAPARTHI SHARON SUKEERTHANA	DS
180	231FA18369	SURAVARAPU BHAGYA NANDINI	AIANDML
181	211FA04460	RAVIPUDI LAKSHMI PRASANNA	CSE
182	201FA01105	BATTULA DHARANI	BIOTECH
183	231FA04F47	MOTHE VAISHNAVI	CSE
184	231LA22003	KONDLAPALLI GOWTHAM	TT
185	211FA04271	BATHULA SAI TEJA	CSE
186	221FA01010	MALLADI PRAVALLIKA	BIOTECH
187	221FA01017	VELAGA LIKHITHA GAYATHRI	BIOTECH
188	211FA02002	GUDIPUDI JAGADISHWAR RAO	CHEM
189	231FC01123	KURRE MOUNIKA	MBA
190	221FC01133	AADURI PAVAN NAGA VENKATA SEKHAR	MBA
191	211FA19026	GURIVINDAPALL BHANU PRAKASH	CSECS
192	221FA04503	GUJJU JOSEPH ANAND KUMAR	CSE
193	231FA18435	JAMMULA RUPAK BALAJI	AIANDML
194	231FK01087	DHANU SOWRAV KUMAR	BBA

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195	221FA04063	VANKA BHUVANA SAI MOUNEENDRA	CSE
196	231FA04A84	MAKINENI BALA BHOOMIKA	CSE
197	201FA04175	VEERLA LAKSHMI NEEHARIKA	CSE
198	211FA18018	SIDDAMSETTI VAMSI KRISHNA	AIANDML
199	231FA04793	MOGILI GOPI CHAND	CSE
200	211FA06014	BACHHANABOINA SAI PUJITHA	EEE
201	201FA07062	CHINTAKUNTLA VIVEK REDDY	IT
202	211FM01006	BANDARU NANDINI	BSC
203	221LA06009	RAAVI SATYANARAYANA	EEE
204	211FA07105	SHAIK AASIF	IT
205	201FA04294	EMANI.DURGA SRINIJA	CSE
206	221FA18011	MACHARLA LAKSHMI SRINIVASA BHARGAVA SAI	AIANDML
207	231FA05064	SHAIK PAKALAPATI MABU SUBHANI	ECE
208	231FA16054	BURHAN LATEEF	BM
209	201FA04074	REDDYVARI UDAY KUMAR REDDY	CSE
210	231FA05067	KOLLIPARA RISHITHA	ECE
211	231FA04028	PUSHADAPU GIRI SIVA SUBRAHMANYAM	CSE
212	231FA07027	DASARI VENKATA SRIKANTH	IT
213	221FA01027	NITISH KUMAR	BIOTECH
214	201FA15080	GOPALAPPAGARI UDAY	FT
215	231FC01129	KARRI BHARGAVI	MBA
216	221FA04689	SHAIK ARSHADRABBANI	CSE
217	231FA18155	BOLLIMUNTHA SRI PAVAN	AIANDML
218	231FW01089	CHIKOTO TAPIWANASHE MUNMARADZI	BSC HONS
219	231FA04B40	PALEPU M N V SAI RANGA PRABHA	CSE
220	221FA18109	SHAIK SALWAR	AIANDML
221	231FC01145	TAMMA VINAY KUMAR REDDY	MBA
222	221FA01096	PASAPU PRANATHI LAKSHMI	BIOTECH
223	221FA06033	RAJNIKANT KUMAR	EEE
224	221FM01007	POTTURI SONU SAHANA	BSC
225	221FA05176	LINGA NANDINI	ECE
226	231FA04444	POLISSETTY JHANSI PRASANNA LAKSHMI	CSE
227	231FA18200	KOTA VARUN	AIANDML
228	221FA04133	VANDANAPU RESHMA SUREKHA	CSE
229	231FD01074	LUKKA VENKATA SRI RAM	MCA
230	211FA05222	PINNAKA CHAITANYA LAKSHMI	ECE
231	201FA16027	SHAIK AARIFA	BM
232	201FA04160	MADDIREDDY VENKATA SESA SAI SRIJA	CSE

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233	201FA04382	ALLA HEMA NISHITA	CSE
234	211FJ01070	GAJJALA BHARGAV MOULI	BCA
235	221FA04370	EDA SAI NITHIN REDDY	CSE
236	211FA05109	MUNNANGI HARI VARDHAN	ECE
237	231FA04455	THUMMA YUVA KIRAN REDDY	CSE
238	221FA19048	KAMINENI LEELA TAPASWI	CSECS
239	221FW01163	DHARMIREDDI TEJASRI	BSC HONS
240	231FA04132	PARABATHINA RAHUL BABU	CSE
241	231FA18226	KROTHAPALLI HARSHA VARDHAN	AIANDML
242	211FA05073	RENTAPALLA BALAMURALI KRISHNA	ECE
243	221FA07123	KONDRAGANTI LOKESH CHOWDARY	IT
244	231FA18436	IRRI VENKATA SAI KARTHIK	AIANDML
245	221FA19013	SUGGUNA RAMYA SRI	CSECS
246	231FA04288	TIRUKKOVALLURI MONALISA	CSE
247	221FA06012	SUNKARA EESWARA REDDY	EEE
248	221LA08009	TADIBOYINA SAI BHARATH	MECH
249	231FA04833	KODALI HEMANJALI	CSE
250	211FA14036	GORANTLA BALA SARASWATHI	BI
251	231FA18249	KOMMANABOINA SUDHEER KUMAR	AIANDML
252	211FA04374	EEVURI UMESH REDDY	CSE
253	221LA03009	DANTHALA ANAND PAL	CIVIL
254	211FA07075	DIRISINALA NAGA VARDHINI	IT
255	201FA05067	TANGALLAMUDI RAMA SAI	ECE
256	221FA18038	SURE RAGHUNADH REDDY	AIANDML
257	211FA04526	PALLAPU VAMSI	CSE
258	231FA14112	MOHAMMED FATHIMA KHAN	BI
259	231FA04270	CHALICHAM DEEPAK CHOWDARY	CSE
260	231FA04521	BOLISSETTY V N S K MAHALAKSHMI	CSE
261	231FA18045	MUPPASANI VENKATA SAMYUKTHA	AIANDML
262	231FA18184	SHAIK ARSH AFROZ	AIANDML
263	211FA01014	TUPAKULA SANDHYA	BIOTECH
264	211FA08006	BODDU HARSHA VARDHAN	MECH
265	231FA04A21	MAGULURI DIVYA SRI	CSE
266	211FA04295	TOTA KAVYA SREE	CSE
267	211FA05194	VEMULAPATI SUBBA REDDY	ECE
268	231FA05183	MAKUTAM LAKSHMI DURGA JYOTHI	ECE
269	221FA04151	GANPISETTY MANEESHA	CSE
270	201FA04355	AYINAMPUDI NAGA SRIVALLI	CSE
271	211FJ01041	NIKITHA BEERAM	BCA
272	211FA08010	BUTHUKURI MANIKANTA REDDY	MECH

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273	221FA18092	GUNTURU TEJASWINI	AIANDML
274	211FK01076	RAVELLA HEMANTH SAI	BBA
275	221FA04080	MANNEPALLI RAJESH	CSE
276	221LA12016	JUVVA RAVALIKA	AG
277	231FA14083	TALUPULA TANUJA	BI
278	211FA04319	DHANASIRI KAVYA	CSE
279	201FA02006	PURUSHOTAM KUMAR	CHEM
280	231FA14071	SHAIK SANA KOUSAR	BI
281	231FA01004	KONDAPATURI PAVITRA	BIOTECH
282	231FA05298	DASARI PRIDHVI MANJUNADH	ECE
283	211FA04582	VARANASI N V SIVA LAKSHMI NARAYANA	CSE
284	231FK01066	VADRANAM POORNA BALAJI	BBA
285	231FA23105	BATTULA SUSHMITHA CHOWDARY	DS
286	221LA05013	THOTA ROHITHSAI	ECE
287	211FA14007	CHINTAM PUNVITH REDDY	BI
288	211FA04440	NERELLA GEETHA SREE	CSE
289	211FA06036	CHATTI GURU SAI KUMAR	EEE
290	221FA05203	GOGIREDDY RAMI REDDY	ECE
291	221FA04534	MODEM LAASYA	CSE
292	231LA12011	KANCHARLA SAHITHI	AG
293	211FA06010	VEMULA CHARAN	EEE
294	231FA04G83	YALAVARTHI MONIKA	CSE
295	231FA04532	SURAPUREDDY MEGHANA REDDY	CSE
296	231FA04716	KUNALA JITENDRA LAKSHMI NARAYANA PAVAN	CSE
297	231FA05226	YALAVARTHI MADHURI	ECE
298	211FA04363	MANDURI SAI ROSHINI	CSE
299	211FA04002	GORIGE GAYATHRI	CSE
300	221FA05187	DOSAKAYALA AKHILA	ECE
301	231FA04835	PALLAPOTHU MOHANA KRISHNA VENI	CSE
302	231FA04B87	KURRA BHANU SRI	CSE
303	211FK01090	SHAIK KHAJA MOINUDDIN	BBA
304	221FA05143	MATTAPARTHI VENKATESH	ECE
305	231FA07151	KANCHARLA SUMEERA	IT
306	201FA05005	BOMMAGANTI KEERTHANA	ECE
307	201FA04248	DARLA PHANI PRAHARSHA	CSE
308	221FA01102	VADLAMANNATI AKSHAYA	BIOTECH
309	211FA06033	SUDA MARUTHI GOPI CHAND	EEE
310	221FA02004	EMMANUEL SIMON MARTIN SEBIT	CHEM

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311	221FA04507	DIVYA GUPTA	CSE
312	231FA19085	KONDRAGUNTA JOSHIT SIMHA	CSECS
313	231FA18398	GUNA GOUTHAMI	AIANDML
314	211FA07072	GADE GOWTHAM SAI	IT
315	221FA04696	GUNTANALA VENKATAKRISHNA	CSE
316	231FK01141	RAVI KUMAR	BBA
317	221FA01150	NUNNA LIKHITHA SAI	BIOTECH
318	211FK01094	SHAIK RIHAN	BBA
319	231FA04263	DANTHULURI LOKESH BABU	CSE
320	221FA04117	PASUPULETI YESUBABU	CSE
321	231FA04B25	NAGABHAIRAVA OSHITHA	CSE
322	211FW01062	KAMIINENI ADHITHYAA	BSC HONS
323	211FM01033	SANAM PRAVALLIKA	BSC
324	231FA04660	VELPURI SAI MOUSHMI	CSE
325	221FA05160	MANTRAPUDI NIKHILA	ECE
326	211FA01002	VANAMA LAKSHMI PRIYANKA	BIOTECH
327	231FW01001	AKKALA KUSUMA	BSC HONS
328	231FA07086	PARASARAM HANUMANTH SRI VATSAVA	IT
329	231FA04B92	KATUKOTA PREAM KUMAR	CSE
330	231FA04353	ADDANKI GEETIKA	CSE
331	211FA05046	MODUGAVARAPU SAI VINEETH	ECE
332	221FA14035	GRANDHI MINUSHA KOWSALYA	BI
333	221FA18131	GURRALA RAGHU VARDHAN	AIANDML
334	221FA07120	GOLLAPUDI SHILPA	IT
335	221FA04493	VUYYURU HEMANTH	CSE
336	211FA05145	RAMINENI GAYATHRI SAI	ECE
337	231FA04522	RAMISETTY CHANDANA	CSE
338	231FA04C03	BODAPATI MAHESH	CSE
339	231FA04989	PAIDIMARRY BHAVYA SRI	CSE
340	231FA23011	DEVAKI GOPI KRISHNA KURAKULA	DS
341	201FA01075	KASARLA NARSI REDDY	BIOTECH
342	231FA14051	CHITTEM KEERTHI	BI
343	231FA23048	KAKUMANU KALANJALI	DS
344	231FA04C10	BOBBELLA GANESH	CSE
345	211FA15048	TADI BHAVYA VAISHNAVI	FT
346	201FA01117	KOYA TEJA	BIOTECH
347	211FA21005	RAVINUTALA SREE SAI BHARGAV	RA
348	231FA05022	VENNAPUSA ANUGNA	ECE
349	231FA04312	SHAIK MUNEER AHMED	CSE

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350	211FA05023	GHANTA VIGNESH	ECE
351	211FA19052	GUDE TRIVENI	CSECS
352	231FA04487	KOLLIPARA BHUVANA VENKATA LAKSHMI ANUJA	CSE
353	211LA05009	BOLLU RAHUL	ECE
354	221FD01021	DUNDI KATHYAYANI REDDY	MCA
355	231FA04775	YARAGALLA SUNANDA	CSE
356	211FA06003	KODURU HARIKA NAGA LAKSHMI PRIYA	EEE
357	221FW01171	DEV SHANKAR THAKUR	BSC HONS
358	201FA05016	GUDIBANDI AVINASH BHARGAV REDDY	ECE
359	221FA04498	NALLAGORLA BHARGAVI	CSE
360	231FA05238	KANAMARLAPUDI SRIDHAR ANANTH KUMAR	ECE
361	221FA01063	NADIKATTU SUCHITA SHARON	BIOTECH
362	211FA04040	MANDADHI ALEKHYA	CSE
363	201FA04216	BANDREDDY SAI BASAVIAIAH NAIDU	CSE
364	211FA05301	BHOGIREDDY LAKSHMI MANI TEJA	ECE
365	231FK01102	NIDAMANURI SRAVANTHI	BBA
366	231FA05257	VANUKURI LAKSHMI SIVA PARVATHI	ECE
367	231FM01007	DOKKU JAHNAVI	BSC
368	201FA19015	YALAMARTHI VENKATESH	CSECS
369	211LA10005	ATTHOTA ABHINAVA MANIKANTA CHOWDARY	AME
370	211FA18013	BONAGIRI SAI GEETHA	AIANDML
371	231FC01084	KUKKALA POOJITHA	MBA
372	231FA14092	DUGGEMPUDI AKHIL REDDY	BI
373	231FA05122	BANDARU NAGA SREEKAR	ECE
374	231FA04693	GADIREDDY SRI SRESHTA	CSE
375	231FA05092	GAINPISETTY BHAVYA SRI SAI	ECE
376	221FA18167	NUTHI GEETHANJALI	AIANDML
377	201FA17006	MOHAMMAD FAIZAN RAZA	PE
378	221FA04494	KOTHAPALLI VENKATA SAI SANDEEP	CSE
379	231FA04169	MOHAMMAD AATHIYA	CSE
380	231FA04G63	NITISH KUMAR	CSE
381	211FA05229	PARIMI SAI TEJA	ECE
382	221FA14001	GUDAPATI KARTHIKEYA	BI
383	211FA04463	DHULIPUDI VENKATA KARTHIK	CSE
384	211FA05157	KOMMINENI NAGA SRI LAKSHMI	ECE
385	211FA04211	SAYED NAGURMEERA	CSE
386	231FK01129	MEESALA REVANTH SAI	BBA
387	201FA15019	SHAIK AYESHA SULTANA	FT

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388	211FA07062	PALADUGU GOPI KRISHNA	IT
389	211FA04542	KATIVARAPU FRANCIS	CSE
390	221FA05081	PAREPALLI LIKITH	ECE
391	231FA07062	POLINA VIJAYENDRA BABU	IT
392	211FA04338	TARUN PULIPATI	CSE
393	231FA14026	DONTHU SUMA JOSHNA	BI
394	231FA04534	ANITHA YENNA	CSE
395	231FA04E54	SHALINI KUMARI	CSE
396	231FA03019	MATUMIKA ANASHE CHANTELE	CIVIL
397	231FA01034	KANDI SHIVANI	BIOTECH
398	211FA16006	NANNA SANJANA	BM
399	211LA05044	VEMULAPALLI JEEVANA	ECE
400	221FA05117	MIRIYALA UDAYA BHASKAR	ECE
401	211FA04641	PARISA KUMAR RAJA	CSE
402	231FA18299	LELLA GEYA VARDHINI	AIANDML
403	231FA05186	BILLALA JAYASRI	ECE
404	221FC01065	PASUPULETI MANIBABU	MBA
405	231FA04118	PATHAN NAZEER	CSE
406	221FA04632	KANNA KAVYA NANDINI	CSE
407	231FA04A86	TEJESH PERAM	CSE
408	221FA14043	DUDEKULA SAFIYA	BI
409	201FA04275	PADMANABHUNI JEEVANI VENKATA NAGA SAI LAKSHMI	CSE
410	221FA04146	KARUMANCHI JASWANTH TULASI NADH	CSE
411	221FD01015	CHITTIBOINA UPENDRA	MCA
412	231FA04F35	GUNTUPALLI MEGHANA	CSE
413	231FA05072	ERUVURI VENKATA VASU REDDY	ECE
414	231FA23112	GOPISETTI HEMASAIDEEPTHI	DS
415	231FW01069	VENNA TEJASWI	BSC HONS
416	211FA04469	SHIVAM AGARWAL	CSE
417	211FA21006	CHILAKA LOKESH JAYA RAO	RA
418	211LA04005	GOGINENI LAKSHMI SRAVANI	CSE
419	221FW01050	KALAM HEMANTH REDDY	BSC HONS
420	231FA19063	SHAIK SAFIYA MUSKAAN	CSECS
421	221FA04223	KANDUKURI SIRISHA	CSE
422	231FJ01048	SHAIK SONI	BCA
423	231FA04F28	PAMIDI PRADEEP MANIKANTA	CSE
424	211FA04359	KUNDAKARLA MADHURI	CSE
425	231FA04B90	UPPALAPATI SRI BHUVANA LAKSHMI	CSE
426	231FA04283	VARRA AVANTHIKA REDDY	CSE

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427	211FA04400	MULE RAMANJANEYULU	CSE
428	211FJ01079	MOHAMMAD SUHANA BIBI	BCA
429	231FA04F45	GORANTLA JAYA VARSHINI	CSE
430	231FA14082	BAINENI JASWANTH SAI	BI
431	231FA04722	VEMPA VASANTHI	CSE
432	231FA14117	SHAIK TAYYABA TASNEEM	BI
433	201FK01051	GOLLA VENU	BBA
434	211FA01136	KOLLAMMAGARI SREE LEKHA	BIOTECH
435	231FA04756	SAKALABHAKTULA KOUSHIK	CSE
436	211FA04520	DHANUKOTI UMA MAHESH	CSE
437	231FA04274	GRANDHE THANUJA	CSE
438	231FA14007	MYNENI JANANI SRI	BI
439	211FA14040	VELLANKI RAGHU RAM	BI
440	231FA23065	NAGABHYRU KUMAR RAJU	DS
441	211FA04627	GUMMUDU SUMALATHA	CSE
442	221FA04227	AYINAPARTHI PURNA PRABHA ROHINI	CSE
443	231FD01064	THALLURI CHANDRA SEKHAR	MCA
444	211FA05117	GADEKARIKONDA DEVENDRA RAYAL	ECE
445	211FW01051	VEMPARALA NAVYA SRI	BSC HONS
446	231FA05152	DONDAPATI LEELA VINOD KUMAR	ECE
447	231FA04A45	MUKKU SAI PREETHI	CSE
448	221FA18052	SANDHU BHARAT SAI	AIANDML
449	211FA04210	PALADUGU JAYANTH	CSE
450	211LA06002	P.ROJA	EEE
451	211LA08008	KONDA HARSHANTH	MECH
452	211FK01056	MODUGU NITHIN KUMAR	BBA
453	211LA06017	CHIMAKURTHI THULASI MAHA LAKSHMI	EEE
454	231FA18015	POTTURI VENKATA SATYA SAI MANI KUMAR	AIANDML
455	201FA15056	MUTYAM SHARON ROJE	FT
456	201FA04399	PATAN RAHATH ALI KHAN	CSE
457	231FA16038	KAPULAPALLI LAKSHMI ASRITHA REDDY	BM
458	201FA16030	TENALI JASWANTH	BM
459	211LA04001	AKURATHI LAKSHMANA SAGAR	CSE
460	231FA04518	MATCHA DHANUSH	CSE
461	231FA04F17	SHAIK SAMEERA	CSE
462	231FA19032	PARACHALLA SUSMITHA	CSECS
463	231FA04734	BATCHU NAGA SRI SOWKHYA	CSE
464	211FA04382	VAJRALA SRI CHANDANA	CSE

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465	231FA04B29	KALATHURI VENKATA ROHITH KUMAR	CSE
466	231FA05014	SHAYESTA TARANNUM	ECE
467	201FA14037	C VENKATA SRIHITHA	BI
468	211FA04120	MANDALA ABHISHEK	CSE
469	221FA05083	SHAIK SAI BASHA	ECE
470	231FW01022	INDIRA THATHIVIKA DUPATI	BSC HONS
471	211FA05257	SUNKARA DINESH KUMAR	ECE
472	231FA04415	KUKATLA SRAVANI	CSE

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**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Eco Friendly- Cloth Bag Distribution**

Date:23.01.2024

Venue: VeeranayakuniPalem

The VFSTR NSS-UEAC wing arranged a distribution event with cloth bags.

The purpose of this event was to raise awareness on the negative environmental consequences of plastic and to encourage the usage of cloth bags as an alternative to plastic bags. Poor residents of Vignan's University's surrounding neighbourhoods who couldn't purchase pricey eco-friendly bags were the event's target demographic.

An overview of the NSS program and the event's importance was given at the start of the event. Following the introduction, cloth bags were distributed. The cotton bags were sponsored by IOCL. The bags featured the IOCL emblem printed on them and were composed of environmentally friendly materials. A briefing regarding this event was given to the guests, explaining the value of utilizing cloth bags and the negative consequences of single-use plastics.

This event also raises awareness on the value of protecting the environment and the part that each person can play in lowering the use of plastic. The total of 65 volunteers and NSS coordinators who gave the presentation stressed the value of protecting the environment for coming generations and the necessity of sustainable living.

In summary, Vignan University's UEAC team, working with IOCL, successfully planned a cloth bag distribution event that raised awareness on the negative environmental consequences of plastic and encouraged the usage of eco-friendly bags. The occasion was a step toward environmental preservation and sustainable life.



Cloth bag Distribution at Veeranayakunipalem village on 23.01.2024

List of volunteers:

Cloth bag Distribution at VN Palem on 23.01.2024			
S. No	Reg. No	Name of the Student	Branch
1	211FM01058	ENDLA DIVAKAR REDDY	BSC

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2	201FA04462	ARIMANDA DHEERAJ REDDY	CSE
3	221FJ01047	MOHAMMED AHMED KHALID AHMED	BCA
4	201FA04170	TIRUMALASETTY PAVAN KUMAR	CSE
5	211FW01011	ANUMULA VENKATA RAMANJANEYULU	BSC HONS
6	231FC01119	KANCHUGANTLA SRINIVAS GOPI	MBA
7	231FA23040	BOYIDI NAGA AKSHAYA	DS
8	231FA04F05	ALA TANUJA	CSE
9	181FA01142	KASULA VENKATA SAI KUMAR RAJA	BIOTECH
10	211FA04632	KANCHINADHAM SRI PRANATHI	CSE
11	191FA05094	KAKARAPARTHI SESA RAO	ECE
12	231FA14011	GUDAPATI GNANA AASRITHA	BI
13	201FA05076	DONTHINENI SIVA KRISHNA	ECE
14	221FK01094	SUMI KUMARI	BBA
15	211FJ01023	DEVARAPALLI SATHYA PRAKASH	BCA
16	231FA05304	AMAN KUMAR RAI	ECE
17	231LA06003	VADUPU DURGA DINESH	EEE
18	221FA05096	VASIMALLA PRABHAS	ECE
19	231FA04C72	RAMINENI KAILASH	CSE
20	221FA04736	PRATYUSH KUMAR	CSE
21	231FW01095	MANGUNDU TANAKA	BSC HONS
22	201FA19006	BADE RISHIKA	CSECS
23	201FA04267	GADIYAMULA SIVA GANESWARA RAO	CSE
24	211LA03005	VALLEPU DURGA	CIVIL
25	211FW01020	EMULA BAJI BABU	BSC HONS
26	221FD01032	KANAKAM SAI PREETHI	MCA
27	231FA01044	ELETI BENSON	BIOTECH
28	231FJ01030	BOINA NAGA MARUTHI KRISHNA	BCA
29	221FW01061	NANDAM PHANINDRA SUBHASH	BSC HONS
30	201FA01093	UPPUTURI SYAM KUMAR GUPTA	BIOTECH
31	231FA23096	YERUVA VENKATA SATISH KUMAR REDDY	DS
32	221FA04530	NOMINI BALA PRASANA BOPANA	CSE
33	221FA04685	TIYYAGURA KARTHIKEYAN REDDY	CSE
34	231FA18390	KORUKONDA HIMA BINDU	AIANDML
35	221FA07089	JAKKAM LAVANYA	IT
36	211FA18132	MENDU SRAVANTHI	AIANDML
37	231FA18442	NICHENAKOLLA VEERENDRA CHAKRI	AIANDML

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38	221FA05060	PERAM TANUJA	ECE
39	231FW01039	MANTRIPRAGADA LALITHA BALA TRIPURA SUNDARI	BSC HONS
40	231FA03018	MASVIKENI PRINCE BATSIRAI	CIVIL
41	231FA04871	JONNADULA ABHIRAM	CSE
42	231FA04B95	SHAIK MUZEEF	CSE
43	211FA05111	YARLAGADDA RAMYA SHREE	ECE
44	231FA04207	THIPPAREDDY YASHASWINI	CSE
45	231FA18062	PRAGADA KUMAR	AIANDML
46	231FW01050	PORANKI DHYAN SAI SRI	BSC HONS
47	211LA05012	PEDDAPULI REVANTH KUMAR	ECE
48	221FA05041	CHATRA SRAVANI	ECE
49	231FA23091	KOYA JHANSI	DS
50	221FA01059	POTHUGANTI GULNAZ MABUNNI	BIOTECH
51	201FA04425	PEDDOJU VENKATA NAGARAJUNA	CSE
52	201FA04099	JANGA NAGA VENKATA GANESH	CSE
53	231FK01042	JAMPANI SAI PRAVALLIKA	BBA
54	221FA04381	MAKHAM BALA LAKSHMI SUJITH	CSE
55	201FA01092	PERUMALLA PRADEEPTHI NAVYA	BIOTECH
56	221FA14085	VUYYURU KESAVI HIMABINDHU	BI
57	211FA04431	MANDADAPU HRUSHIKESH	CSE
58	231FA18413	GUDE MADHU	AIANDML
59	231FA04844	KARI POOJITHA	CSE
60	231FA06041	NYANZERO SHAME	EEE
61	221FA18057	BANDLAMUDI MOUNIKA	AIANDML
62	221FA14031	SHRUTI KUMARI	BI
63	231FK01101	DASARI HIMAGIRI	BBA
64	231FJ01064	SHAIK MOHAMMAD ATHEEF	BCA
65	221FA15025	MOHAMMED IRFAN	FT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Blood Donation Camp**

Date:24.01.2024

Venue: VFSTR

UEAC (University Extension Activity Council) Unit of VFSTR organized a Blood Donation Camp on the occasion of Republic Day on 24th Jan 2024 on University premises. It was held at four places (NTR library video conference hall, 1st floor, TBI Seminar 2nd floor Nagarjuna block, AGF-02 U block ground floor and VFF-02 Lara campus). A team of 4 doctors and 30 lab technicians from GGH Guntur, needed a blood bank, Guntur and Sree Welfare Blood Bank Guntur came for the collection of blood. The event started at 10.00 AM.

The Dean of Student Affairs Dr.M.S.S Rukmini and the UEAC Programme Officer Dr. Vijayababu Palukuri inaugurated the camp. The UEAC Programme Officer encouraged the students and staff by donating his blood and explained the benefits of blood donation to students. He also said that every donor can save the lives of people in an emergency. 70 students and 10 faculty members from the different departments donated blood to this camp. The three blood banks have given appreciation certificates to all the donors for their voluntary generous responsibility. The camp was completed around 3 PM.



Blood Donation Camp on 24.01.2024

List of volunteers:

Blood Donation Camp on 24.01.2024			
S. No	Reg. No	Name of the Student	Branch

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1	231FJ01033	ARUDALA PUJITA	BCA
2	211FA18102	MALISSETTI RAMNARAYANA	AIANDML
3	231FA05105	KUNCHALA VENKATA KOTESWARA REDDY	ECE
4	211FK01152	YENUGANTI LEELA MAHESWARI	BBA
5	211FA04499	SHAIK MOHAMMED SAIF	CSE
6	231FA07023	KARNATI PAVITHRA	IT
7	211FA04036	BANDLA M SRI LAKSHMI DURGA NIKHITHA	CSE
8	221FA02002	SHAIK ASSAD	CHEM
9	231FA04029	POPURI BINDU MADHAVI	CSE
10	231FA23038	CHANDALURI VASANTH REDDY	DS
11	211FA05165	SHAIK KHALEED BASHA	ECE
12	201FA20004	ANISSETTI VENKATA SAI YASWANTH	CSBS
13	221FA04350	SHAIK FATHIMUNNISA	CSE
14	231FA18373	MUMMINA BHARGAV	AIANDML
15	231FA04069	SHAIK ARSHAD	CSE
16	231FA04320	GRANDHI VENKATA SAI PRATHAP	CSE
17	221FA04095	GUNTURU MANOJ KUMAR	CSE
18	231FA04C53	BAPANAPALLI SOWJANYA	CSE
19	211FJ01051	SAYYAD SHAFI	BCA
20	231FA15033	UDATHA SIVA MANI	FT
21	221FA04240	CHERUKURI PRAVALYA	CSE
22	211FA04351	IGUTURI MOUNIKA	CSE
23	221FW01020	NUNNA SRAVANTHI	BSC HONS
24	231FA04G71	BADDELA RAJA SEKHAR	CSE
25	211FW01096	KORIVI KARTHEEK	BSC HONS
26	231FA16007	PENUMALA VARSHINI	BM
27	211FA05168	MADAMANCHI LAKSHMI SINDHURA	ECE
28	231FA04A55	AKULA HIMAVARSHITHA	CSE
29	221LA08018	LAKSHMISSETTY RAGHUVeer KANTH	MECH
30	221FJ01077	VELANATI SAI APURUPA	BCA
31	231FA05244	DUSARI MADHU VENKATA SAI RAM	ECE
32	231FA04E09	HARI KRISHNA TUPAKULA	CSE
33	221FA07080	SAKALA LAKSHMI BHANU SAI SATHISH	IT
34	221FA04660	PALEPU M N V S LS PRABHAVATHI	CSE
35	231FC01108	MEKALA INDIRA PRIYADARSINI	MBA
36	231FA04A62	MUSULLA SATYA SAI RAKESH	CSE
37	231FA04935	MANDADI MURALI KRISHNA REDDY	CSE
38	201FA01121	KASVA DIVYA SREE	BIOTECH
39	221FA04210	VANGA JAHNAVI	CSE
40	231FA04362	RAMISSETTI TAGORE	CSE
41	211FA01032	PALLABOTHULA NAGA LAKSHMI	BIOTECH

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42	231FA04374	GOGINA UMA MAHESWARI	CSE
43	221FA06002	WALEED	EEE
44	221FA01035	PAMULAPATI HARIKA	BIOTECH
45	211FA06011	VARAGANI ANJANEYULU	EEE
46	211FA04341	NALLABOTHU TRINADH	CSE
47	211FA20012	YARRA NAGA VENKATA ARAVINDHA SAKETH	CSBS
48	221FA05201	JONNAKUTI VINAY JOSEPH	ECE
49	221FA05229	TANGELLAMUDI MOUNIKA	ECE
50	211FA04062	ADDEPALLI JAYANTH	CSE
51	221FD01046	NARADASU PAVAN KALYAN	MCA
52	211FA04197	MACHAVARAPU SAI SRAVYA SRI	CSE
53	231FA23095	SRUNGARAPU MOHAN VENKATA GOPI SIDHARDHA	DS
54	201FA04280	JERRIPOTHULA YOGYATHA SREE	CSE
55	221FA07067	KOLLI AARATHI	IT
56	221FA04032	PALADUGU SIVA SATYANARAYANA	CSE
57	231FA04517	KASUKURTHI RISHITHA	CSE
58	231FA03001	JALALELDEEN MOHAMED ADAM MODARDUM	CIVIL
59	231FA05202	KORNE GANESH	ECE
60	221FA04639	YEKKANTI LAKSHMI	CSE
61	201FA14024	BHAVANAM DIVYA SAISRI	BI
62	221FK01065	RAJANALA SOWJANYA	BBA
63	211FK01036	KALIKIRI KISHAN REDDY	BBA
64	221FA01095	VELDURTHI MOKSHA MADHUMINA	BIOTECH
65	221FA07016	THOTA SRAVAN KUMAR	IT
66	221FA04031	NAGULAPATI PHANINDRA RAJAMITHRA	CSE
67	231FA04130	KASIBHOTLA LAKSHMI RAJESWARI SAILAJA	CSE
68	211FA07052	SHAIK NAGULMEERA	IT
69	231FA03015	MABIKA AUSTIN T	CIVIL
70	231FA04B70	GANAPA RAKESH REDDY	CSE



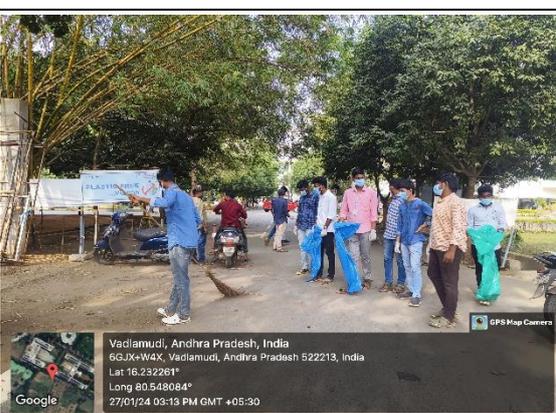
**University Extension Activity Council (UEAC)
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SWATCH VIGNAN**

Date: 27.01.2024

Venue: VFSTR

We the team UEAC has conducted “Swatch Vignan” event on 27-January-2024 to inculcate the habitat of cleanness and hygiene maintenance. The main motto of the event is to bring awareness among the students about cleanness and its importance.

This event had been a regular occurrence on a weekly basis in different parts of the university, it was unique because, for the first time, it encompassed all the university blocks. The event was started by 2:00 PM with the presence of all the core team, vertical leads, vertical members, section coordinators and volunteers. This includes around 625 members from different departments. The Objective of cleanliness drive is to get rid of all the non-biodegradable waste like plastic covers, plastic straws, rubbers, toxic substances, fibres and thermocouple and clean university premises. Our UEAC team members including core team, vertical leads, vertical members, section coordinators and volunteers gathered in college. They have divided into groups and takes place according to their disciplines of the branches and each group has contributed their efforts to make university clean. The event started by 2:30 PM. Finally, event completed at 4:00PM



Swatch Vignan at VFSTR on 27.01.2024

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List of volunteers:

SWACHH VIGNAN on 27.01.2024			
S. No	Reg. No	Name of the Student	Branch
1	221FA04456	PARADAPARAPU MOKSHAGNA	CSE
2	221FA04370	EDA SAI NITHIN REDDY	CSE
3	231FA04693	GADIREDDY SRI SRESHTA	CSE
4	201FA04031	SANAKA SHANMUKA SRI HARSHA	CSE
5	211FA04261	MANDELA KESAVA SAI MANIKANTA	CSE
6	231FA19063	SHAIK SAFIYA MUSKAAN	CSECS
7	231FA14129	GUDA MAHESH REDDY	BI
8	201FA04074	REDDYVARI UDAY KUMAR REDDY	CSE
9	231FA04C78	BETHAPUDI VINCENT SAMUEL	CSE
10	231FA18094	GANGAVARAPU DILEEP CHANDU	AIANDML
11	231FJ01049	ODIGA BAJI BABU	BCA
12	221FA04063	VANKA BHUVANA SAI MOUNEENDRA	CSE
13	201FA04208	VIJAYABHARATI K	CSE
14	201FA01063	DUVVURU PRAGNA REDDY	BIOTECH
15	201FA14016	CHIRALA SRAVANI	BI
16	201FA07069	RASAMSETTY G V L BHARATH	IT
17	211FA05023	GHANTA VIGNESH	ECE
18	211FA04626	RAM KRIPAL GAURAV	CSE
19	221FA04118	SHIVAM KUMAR	CSE
20	211FK01076	RAVELLA HEMANTH SAI	BBA
21	201FA19006	BADE RISHIKA	CSECS
22	231FA06039	MAZANI KUDAKWASHE BLESSED	EEE
23	231FA18249	KOMMANABOINA SUDHEER KUMAR	AIANDML
24	231FA21010	GANAPA ADILAKSHMI	RA
25	221LA03009	DANTHALA ANAND PAL	CIVIL
26	231FA05064	SHAIK PAKALAPATI MABU SUBHANI	ECE
27	201FA07049	BAVIRISETTY PRASANNA KUMAR	IT
28	211FA08006	BODDU HARSHA VARDHAN	MECH
29	201FA15080	GOPALAPPAGARI UDAY	FT
30	231FA04722	VENPA VASANTHI	CSE
31	231FC01157	GATTU MESSY ROYAL	MBA
32	211FA05194	VEMULAPATI SUBBA REDDY	ECE
33	221FD01021	DUNDI KATHYAYANI REDDY	MCA
34	201FA04170	TIRUMALASETTY PAVAN KUMAR	CSE
35	211FA05117	GADEKARIKONDA DEVENDRA RAYAL	ECE
36	231LA06005	MOHAMMAD ARSHAK	EEE

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37	211FA04359	KUNDAKARLA MADHURI	CSE
38	211FA07054	KATARU VEERA SHANMUKA	IT
39	211FK01003	ANGILIKA KRITHIKA	BBA
40	231FA23065	NAGABHYRU KUMAR RAJU	DS
41	221FA04671	TUMMALA AKASH	CSE
42	211FA08007	BATTULA KALYAN RAM	MECH
43	221FA01087	SURE LAKSHMI SAI SREE	BIOTECH
44	231FA04521	BOLISETTY V N S K MAHALAKSHMI	CSE
45	231FA14112	MOHAMMED FATHIMA KHAN	BI
46	221FA04591	EDARA SAI NAGA LAKSHMI	CSE
47	211FA04390	PARIMI VENKATA SAI YOGESWAR	CSE
48	231FA01002	MANCHIKALAPUDI PRANEETHA CHOWDARY	BIOTECH
49	201FA07062	CHINTAKUNTLA VIVEK REDDY	IT
50	231FA18045	MUPPASANI VENKATA SAMYUKTHA	AIANDML
51	221FD01062	TALLAM SRI VYSHNAVI	MCA
52	231FA04001	SANKEPELLI SAMEERA	CSE
53	211FA04641	PARISA KUMAR RAJA	CSE
54	211FK01045	KOTA PRIYANKA	BBA
55	231FA07151	KANCHARLA SUMEERA	IT
56	221FA14065	RAYIDI SRI SAI CHINMAI	BI
57	221FA04040	MUPPALLA BHAVYA SRI	CSE
58	201FA04425	PEDDOJU VENKATA NAGARAJUNA	CSE
59	211FA18015	SEELAM RUCHITHA MAHI	AIANDML
60	201FA14002	SURASANI VARUN KUMAR REDDY	BI
61	211FA07089	TIRUNAGARI VENKATA GOPI KRISHNA	IT
62	231FA14050	TATIPARTHI MADHURA VANI	BI
63	181FA01142	KASULA VENKATA SAI KUMAR RAJA	BIOTECH
64	231FC01119	KANCHUGANTLA SRINIVAS GOPI	MBA
65	231FC01023	KOPPURAVURI CHAITANYA SAI RAM	MBA
66	221FA04080	MANNEPALLI RAJESH	CSE
67	231FA18431	DARAM SRINIVASA REDDY	AIANDML
68	231FA04620	NAVULURI VEDA SREE	CSE
69	231FA01020	SHAIK RESHMA	BIOTECH
70	221FA05221	MONDITHOKA SOWMYA	ECE
71	201FK01051	GOLLA VENU	BBA
72	211FA05109	MUNNANGI HARI VARDHAN	ECE
73	231FC01102	MUSKAN KUMARI JAISWAL	MBA
74	201FA15056	MUTYAM SHARON ROJE	FT
75	231FM01007	DOKKU JAHNAVI	BSC

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76	231FA18200	KOTA VARUN	AIANDML
77	201FA07068	KATIKA KALESWARAMMA	IT
78	231FA04D45	YENIGALLA SHANMUKH	CSE
79	221FW01115	PULICHARLA PRAVALIKA	BSC HONS
80	231FC01145	TAMMA VINAY KUMAR REDDY	MBA
81	231FA04898	SHAIK SAMEER	CSE
82	201FA01027	KANUGOLU HEMANTH KUMAR	BIOTECH
83	221FA04537	MUPPALLA LASYA	CSE
84	231FA04B95	SHAIK MUZEEF	CSE
85	231FA18062	PRAGADA KUMAR	AIANDML
86	231FW01001	AKKALA KUSUMA	BSC HONS
87	211FA07020	VENKATA SAI RAHUL VEMULURI	IT
88	231FA04274	GRANDHE THANUJA	CSE
89	211FA04460	RAVIPUDI LAKSHMI PRASANNA	CSE
90	221FA14075	SHAIK FUZEL AKTHER	BI
91	231FA04561	VASIREDDY AKSHITA NEHA	CSE
92	221FA04724	PITLA MANOHAR	CSE
93	221FA05060	PERAM TANUJA	ECE
94	211FA05298	MEDI RAGHU	ECE
95	231LA22003	KONDLAPALLI GOWTHAM	TT
96	231FA04A86	TEJESH PERAM	CSE
97	231FA04B65	ALLAMSETTY SHANUMUKH SAI SRI BALAJI	CSE
98	221FA21003	MANCHINA SIVA BHARGAV	RA
99	211FA04134	RAHUL CHANDRA	CSE
100	201FA04267	GADIYAMULA SIVA GANESWARA RAO	CSE
101	221FC01037	CHALLA PRANATHI	MBA
102	221FA04698	PEDDI AMRUTHA NAGA VALLI	CSE
103	231FW01091	CHIRADZA EMMANUEL ELIAS	BSC HONS
104	231FK01087	DHANU SOWRAV KUMAR	BBA
105	221FA14031	SHRUTI KUMARI	BI
106	211FA04400	MULE RAMANJANEYULU	CSE
107	221FJ01010	BAPATLA SOMESWAR	BCA
108	221FA07024	BAPATHU SRIRAM REDDY	IT
109	211FA04220	CHINTHAPALLI BHAVANA CHOUDARY	CSE
110	211FA04382	VAJRALA SRI CHANDANA	CSE
111	201FA01092	PERUMALLA PRADEEPTHI NAVYA	BIOTECH
112	231FA05183	MAKUTAM LAKSHMI DURGA JYOTHI	ECE
113	221FA18057	BANDLAMUDI MOUNIKA	AIANDML
114	221FA04696	GUNTANALA VENKATAKRISHNA	CSE

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115	221FA04386	TALLURI LILADHAR AKHIL	CSE
116	211LA05007	NAGUMOTU ANJANA SRI	ECE
117	211FA14007	CHINTAM PUNVITH REDDY	BI
118	221FA18131	GURRALA RAGHU VARDHAN	AIANDML
119	221FA05081	PAREPALLI LIKITH	ECE
120	231FA04801	DASARI HARSHITH	CSE
121	231FA16037	PUDUCHERI PADMA SRI	BM
122	221FA05199	NAGUMOTHU ROSHINI	ECE
123	211FA19026	GURIVINDAPALL BHANU PRAKASH	CSECS
124	201FA04334	KONDRAGUNTA NEHA	CSE
125	221FA04352	BOLLIMUNTHA PREETHI	CSE
126	231FA01098	GURAJALA YASWITHA	BIOTECH
127	231FA23027	MALLINA SUSMITHA	DS
128	231FA16038	KAPULAPALLI LAKSHMI ASRITHA REDDY	BM
129	231FA04C10	BOBBELLA GANESH	CSE
130	221FA04644	BACHINA NIKHILESH	CSE
131	211FA01002	VANAMA LAKSHMI PRIYANKA	BIOTECH
132	221FA04530	NOMINI BALA PRASANA BOPANA	CSE
133	221LA12016	JUVVA RAVALIKA	AG
134	221FA04073	BELLAMKONDA CHAITANYA NANDINI	CSE
135	231FA20010	AMARTALURU SRUJEETH GUPTA	CSBS
136	201FA04248	DARLA PHANI PRAHARSHA	CSE
137	201FA04202	CHITTURI YESWANTH	CSE
138	221FA04494	KOTHAPALLI VENKATA SAI SANDEEP	CSE
139	211FM01006	BANDARU NANDINI	BSC
140	221FA05143	MATTAPARTHI VENKATESH	ECE
141	221FA04725	ADITYA KUMAR	CSE
142	231FA04E08	EPPALA TEJA SRI	CSE
143	211LA06002	P.ROJA	EEE
144	221LA12014	VADDE MOUNIKA	AG
145	231FA16041	KUDULLA BHAGYA SRI	BM
146	231FC01082	NAGA LAKSHMI RAJUPALEPU	MBA
147	231FA07113	APPIDI SAI KUMAR REDDY	IT
148	231FA23021	KATURI BHARGAVI	DS
149	201FA04213	AVULA HARIKA	CSE
150	211FA04520	DHANUKOTI UMA MAHESH	CSE
151	211FA07072	GADE GOWTHAM SAI	IT
152	221FA18045	KORRA VENKATA KRISHNA NAGA MANIKANTA	AIANDML

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153	201FA14037	C VENKATA SRIHITHA	BI
154	221FA04687	BALUSU DIVYA SNEHITHA	CSE
155	231FA04F47	MOTHE VAISHNAVI	CSE
156	231FA04B50	KOLLURU VEDA SRI SURYA SASANK	CSE
157	231FA05318	SIBANDA LIBERTY F	ECE
158	221FA05015	GAVINI LAVANYA	ECE
159	211FA14061	SHARON KUMAR MUNAGATI	BI
160	211FA01062	BURRI GANESH	BIOTECH
161	231FA18226	KROTHAPALLI HARSHA VARDHAN	AIANDML
162	231FA18398	GUNA GOUTHAMI	AIANDML
163	211FA05289	NEELAM PHANEENDRA SAI	ECE
164	221FC01096	SYED KARISHMA KAREEM	MBA
165	221FA07123	KONDRAGANTI LOKESH CHOWDARY	IT
166	211FA05229	PARIMI SAI TEJA	ECE
167	211FA14036	GORANTLA BALA SARASWATHI	BI
168	211FA06014	BACHHANABOINA SAI PUJITHA	EEE
169	201FA04273	BHAVIRISETTI VARA LAKSHMI	CSE
170	231FA04A78	KALLAGUNTA VENKATA LAKSHMI	CSE
171	231FA07058	TALLA NAGA MALLESWARA RAO	IT
172	231FA04106	KANAMARLAPUDI SURYA CHANDRA GUPTHA	CSE
173	231FA04118	PATHAN NAZEER	CSE
174	211FW01020	EMULA BAJI BABU	BSC HONS
175	231FK01066	VADRANAM POORNA BALAJI	BBA
176	231FA23091	KOYA JHANSI	DS
177	211LA08017	SHAIK SHAKEEL	MECH
178	211FA16006	NANNA SANJANA	BM
179	231FA05065	GUDUDUR SATHWIK	ECE
180	211FA01018	GOBATTINI CHANDANA	BIOTECH
181	201FA15074	CHINTA JYOTHI JAYAWARDHAN	FT
182	221FA04169	RAYAPUDI PRATHYUSHA	CSE
183	211FK01047	LAKKI REDDY AJAY KARTHIK REDDY	BBA
184	221FA05088	VEERANKI SIVA NAGA PHANINDRA	ECE
185	231FA14117	SHAIK TAYYABA TASNEEM	BI
186	201FA04326	INDALA JYOTHIRMAYEE	CSE
187	211FA04034	LINGINENI LAKSHMI SOWJANYA	CSE
188	231FA04838	KOYA NAVYA SRI	CSE
189	231FA16054	BURHAN LATEEF	BM
190	231FA04775	YARAGALLA SUNANDA	CSE
191	221FA07089	JAKKAM LAVANYA	IT

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192	201FA18009	SANAGALA BHAVANA	AIANDML
193	211LA04001	AKURATHI LAKSHMANA SAGAR	CSE
194	221FA23011	PALAPARTHI SHARON SUKEERTHANA	DS
195	201FA01117	KOYA TEJA	BIOTECH
196	221FW01171	DEV SHANKAR THAKUR	BSC HONS
197	231FW01089	CHIKOTO TAPIWANASHE MUNMARADZI	BSC HONS
198	211FA05301	BHOGIREDDY LAKSHMI MANI TEJA	ECE
199	231FA05257	VANUKURI LAKSHMI SIVA PARVATHI	ECE
200	211FA19009	GOGADA JYOTHI SUBRAHMANYAM SAI	CSECS
201	231FA23112	GOPISETTI HEMASAIDEEPETHI	DS
202	211FA06003	KODURU HARIKA NAGA LAKSHMI PRIYA	EEE
203	211FA08010	BUTHUKURI MANIKANTA REDDY	MECH
204	231FA04B87	KURRA BHANU SRI	CSE
205	231FK01101	DASARI HIMAGIRI	BBA
206	201FA04462	ARIMANDA DHEERAJ REDDY	CSE
207	231FA04993	TADIKAMALLA VASAVI LAKSHMI SREE	CSE
208	231FA18063	TAVVA JAGADISH	AIANDML
209	231FA01102	SHAIK BABI	BIOTECH
210	221FA04282	TADIKONDA BHAGAT SAI	CSE
211	231FA04034	GOTTAM MASTHAN RAO	CSE
212	231FJ01052	JANGALA DEEPIKA	BCA
213	231FA04162	JUJJURI DIVYA	CSE
214	231FK01129	MEESALA REVANTH SAI	BBA
215	211FA04374	EEVURI UMESH REDDY	CSE
216	221FC01133	AADURI PAVAN NAGA VENKATA SEKHAR	MBA
217	201FA01105	BATTULA DHARANI	BIOTECH
218	221FA04493	VUYYURU HEMANTH	CSE
219	201FA01075	KASARLA NARSI REDDY	BIOTECH
220	231FA04G83	YALAVARTHI MONIKA	CSE
221	231FD01013	CHITTE NAGA SAI LAKSHMI	MCA
222	231FA04660	VELPURI SAI MOUSHMI	CSE
223	231FA04007	PALLAPOTHU VINAY	CSE
224	231FW01048	PATHAN SAMEENA KHANAM	BSC HONS
225	211FJ01041	NIKITHA BEERAM	BCA
226	201FA04456	REDDY RAJESWARI	CSE
227	201FA04160	MADDIREDDY VENKATA SESA SAI SRIJA	CSE

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228	231FA18275	MODEM RUTHWIK	AIANDML
229	211FA04116	JAMPANI BHAVYASREE	CSE
230	231FA05238	KANAMARLAPUDI SRIDHAR ANANTH KUMAR	ECE
231	231LA02003	BANDELA UDAYABHASKAR	CHEM
232	231FA05223	SOMAROUTHU D APARNA	ECE
233	231FA05072	ERUVURI VENKATA VASU REDDY	ECE
234	231FA04878	KASSETTY LOHITH KUMAR	CSE
235	231FA04A71	DUNDI SAINADH REDDY	CSE
236	231FA04433	AKKALA HEMANTH REDDY	CSE
237	231FA23048	KAKUMANU KALANJALI	DS
238	221FA06019	MUNNANGI VARSHITHA	EEE
239	231FA01044	ELETI BENSON	BIOTECH
240	231FA14007	MYNENI JANANI SRI	BI
241	211FA19031	DEVARPALLI TEJASWI	CSECS
242	211LA08008	KONDA HARSHANTH	MECH
243	211LA05044	VEMULAPALLI JEEVANA	ECE
244	231FA04064	ARAVAPALLI VENKATA SATHWIK KUMAR	CSE
245	221FC01125	CHANDOLU MANIDEEP	MBA
246	231FA20014	SHAIK YASIN BASHA	CSBS
247	231FA04G81	KOMATIGUNTA YAMUNA	CSE
248	231FA04A82	ALLAM VARSHINI	CSE
249	221FA01150	NUNNA LIKHITHA SAI	BIOTECH
250	231FA04159	TUPAKULA SRIKANTH	CSE
251	231FA04844	KARI POOJITHA	CSE
252	221FA14069	SHAIK NADEEM	BI
253	221FA01010	MALLADI PRAVALLIKA	BIOTECH
254	221FJ01044	MOHAMED ADAM HASSAN ADAM	BCA
255	221FW01130	PODILI SRI SAI GOPI KRISHNA	BSC HONS
256	211FK01115	YEPURI VIJITHA	BBA
257	221FA14085	VUYYURU KESAVI HIMABINDHU	BI
258	201FA15019	SHAIK AYESHA SULTANA	FT
259	231FA18413	GUDE MADHU	AIANDML
260	211LA05009	BOLLU RAHUL	ECE
261	201FA07057	KAKANI NAVYA SRI	IT
262	231FM01002	KURRA HARSHA VARDHAN	BSC
263	231FA05014	SHAYESTA TARANNUM	ECE
264	221FA04146	KARUMANCHI JASWANTH TULASI NADH	CSE
265	201FA04266	GOGIREDDY SAISRUTHI	CSE

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266	231FA04F35	GUNTUPALLI MEGHANA	CSE
267	231FA04415	KUKATLA SRAVANI	CSE
268	231FA18289	ALAPATI MEGHANA	AIANDML
269	201FA04361	KUNCHALA RAVI KIRAN REDDY	CSE
270	221FA23005	GEETHA M	DS
271	231FA04B29	KALATHURI VENKATA ROHITH KUMAR	CSE
272	201FA16027	SHAIK AARIFA	BM
273	221LA06009	RAAVI SATYANARAYANA	EEE
274	231FA04067	ADDEPALLI SHANMUKHA PAVAN	CSE
275	221FA18038	SURE RAGHUNADH REDDY	AIANDML
276	211FA05161	DODDI VENKATA ANAND DWEELAK	ECE
277	231FA05229	POOLA GIRISH NAIDU	ECE
278	231FJ01042	MATTA GNANA SAI SWARUP	BCA
279	231FA04D91	YALLA TEJA	CSE
280	221FA04381	MAKHAM BALA LAKSHMI SUJITH	CSE
281	221FA18031	KASINDALA CHARAN CHOWDARY	AIANDML
282	231FA05152	DONDAPATI LEELA VINOD KUMAR	ECE
283	221FA04070	PASUPULETI NITHYA	CSE
284	231FA23105	BATTULA SUSHMITHA CHOWDARY	DS
285	231FA04744	GADUPUDI BHAVYA SRI	CSE
286	231FA18435	JAMMULA RUPAK BALAJI	AIANDML
287	231FA18402	TAVITI JWALA NARASIMHA	AIANDML
288	231FA23096	YERUVA VENKATA SATISH KUMAR REDDY	DS
289	221FW01061	NANDAM PHANINDRA SUBHASH	BSC HONS
290	201FA01072	MADALA HIMA SRI	BIOTECH
291	231FA19062	BETHALA SUPRIYA	CSECS
292	231FA04263	DANTHULURI LOKESH BABU	CSE
293	231FA15025	SHAIK ARFA BIBIJAN	FT
294	231FD01064	THALLURI CHANDRA SEKHAR	MCA
295	231FA18450	DIVI GOWTHAM CHOWDARY	AIANDML
296	211FJ01066	YEJENDLA VENKATA SANTOSHI PRANEETHA	BCA
297	211FA06036	CHATTI GURU SAI KUMAR	EEE
298	211FA04451	SRUNGAVARAPU HARSHA VARDHAN	CSE
299	201FA04382	ALLA HEMA NISHITA	CSE
300	221FA07098	KATTA VAISHNAVI	IT
301	231FW01033	KOLUSU ABHITHA	BSC HONS
302	231FA18171	RAJULAPATI NIKHIL	AIANDML
303	231FA14011	GUDAPATI GNANA AASRITHA	BI

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304	231FA04835	PALLAPOTHU MOHANA KRISHNA VENI	CSE
305	231FA04557	GADIPARTHI ESWARI	CSE
306	221FA05176	LINGA NANDINI	ECE
307	231FA04171	YERRIBOINA AMRUTHA	CSE
308	231FC01129	KARRI BHARGAVI	MBA
309	221FA14068	DEVIREDDY MALLA REDDY	BI
310	201FA04443	JANGALAPALLI HAMSINI	CSE
311	221FA04534	MODEM LAASYA	CSE
312	231FW01070	BADUGU SWETHA	BSC HONS
313	221FA03001	NUKATOTI HANOKU	CIVIL
314	231FA04962	KANAKAM DIVYENDRA	CSE
315	231FA19064	JAHNAVI KAMEPALLI	CSECS
316	231FC01087	NALLURI VEERA SIVA NANDEESWARA RAO	MBA
317	201FA01030	MIRIYALA SAHITHI SREE	BIOTECH
318	211FA20013	RAJAVARAPU SHIVA TEJA	CSBS
319	231FA14082	BAINENI JASWANTH SAI	BI
320	211LA06023	THOTA INDU	EEE
321	211FA04463	DHULIPUDI VENKATA KARTHIK	CSE
322	231FA03020	MUKOTAMI TADIWA	CIVIL
323	221FA05160	MANTRAPUDI NIKHILA	ECE
324	221FA01017	VELAGA LIKHITHA GAYATHRI	BIOTECH
325	221FA14035	GRANDHI MINUSHA KOWSALYA	BI
326	211FA04431	MANDADAPU HRUSHIKESH	CSE
327	211FW01007	KOTIKALAPUDI SUHAS PAUL	BSC HONS
328	211FA04440	NERELLA GEETHA SREE	CSE
329	221FA18130	JASTI RAMAKRISHNA	AIANDML
330	231FA18390	KORUKONDA HIMA BINDU	AIANDML
331	211LA06015	PATHAN MOHAMMED KHAN	EEE
332	211FA04338	TARUN PULIPATI	CSE
333	211FA14010	SYAMALA AKASH	BI
334	231FA04974	GUNTI SOMANADH	CSE
335	211FA04602	JETTI SUBHASHINI	CSE
336	221FA04736	PRATYUSH KUMAR	CSE
337	211FK01094	SHAIK RIHAN	BBA
338	211FW01051	VEMPARALA NAVYA SRI	BSC HONS
339	211FA04211	SAYED NAGURMEERA	CSE
340	221FA04451	PRINCE KUMAR	CSE
341	221FK01094	SUMI KUMARI	BBA
342	201FA04020	MANJEERA BOLISSETTY	CSE

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343	211FA07075	DIRISINALA NAGA VARDHINI	IT
344	221FA04151	GANPISETTY MANEESHA	CSE
345	221FC01083	SANNEBOINA MARY USHA SRI	MBA
346	221FA01063	NADIKATTU SUCHITA SHARON	BIOTECH
347	231FA04312	SHAIK MUNEER AHMED	CSE
348	231FA04G12	MADALA VINDYA	CSE
349	231FA04518	MATCHA DHANUSH	CSE
350	231FA04B92	KATUKOTA PREAM KUMAR	CSE
351	231FA04534	ANITHA YENNA	CSE
352	231FA04C72	RAMINENI KAILASH	CSE
353	231FW01039	MANTRIPRAGADA LALITHA BALA TRIPURA SUNDARI	BSC HONS
354	221FA19038	BAPANAPALLI ROHAN TEJA	CSECS
355	231FK01035	SHAIK ABUZAR	BBA
356	231FA04532	SURAPUREDDY MEGHANA REDDY	CSE
357	201FA03007	PONNURI MADHU BABU	CIVIL
358	221FA15025	MOHAMMED IRFAN	FT
359	231FA20015	GALI ANIL KUMAR	CSBS
360	221FA04473	BATTULA HIMA BINDU	CSE
361	231FA04D54	KATTIKA KARTHIK VARMA	CSE
362	211FA15046	GADDAM HRUSHITHA	FT
363	211FM01058	ENDLA DIVAKAR REDDY	BSC
364	221FJ01024	GURRAM MISRITHA	BCA
365	231LA12011	KANCHARLA SAHITHI	AG
366	211FJ01070	GAJJALA BHARGAV MOULI	BCA
367	231FA04A45	MUKKU SAI PREETHI	CSE
368	231FJ01030	BOINA NAGA MARUTHI KRISHNA	BCA
369	231FA05298	DASARI PRIDHVI MANJUNADH	ECE
370	211FA05157	KOMMINENI NAGA SRI LAKSHMI	ECE
371	221FA16036	MODALAVALASA HEMSUNDAR SAIRAM	BM
372	231FA04C12	JASTHI PAVITHRA	CSE
373	211FA07027	KATARU RUSHIESWAR	IT
374	231FA04951	SANGU VENKATA SAHITHI	CSE
375	231FA19085	KONDRAGUNTA JOSHIT SIMHA	CSECS
376	211FA15022	P.S.V.N.SRINIVAS	FT
377	221FA19048	KAMINENI LEELA TAPASWI	CSECS
378	221FA04542	SANAGAPALLI S V K SIVA NAGA SAI	CSE
379	231FA18299	LELLA GEYA VARDHINI	AIANDML
380	221FA04066	GUDAPATI PUJITHA	CSE

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381	221FA04245	NAYUDU SARANYA	CSE
382	231FA05093	VEDALA PRAGNYA SUMALYA	ECE
383	221FW01118	NETHULA VENKATA RAVALI	BSC HONS
384	221FA04685	TIYYAGURA KARTHIKEYAN REDDY	CSE
385	201FA04277	GONDRALA MANASA PRIYA MOUNIKA	CSE
386	211FA04475	ANUSHKA	CSE
387	231FK01042	JAMPANI SAI PRAVALLIKA	BBA
388	231FA05033	JASTI UDAY TEJA	ECE
389	211FA07062	PALADUGU GOPI KRISHNA	IT
390	211FA04469	SHIVAM AGARWAL	CSE
391	221FA04603	GNANESHWAR REDDY DONTIREDDY	CSE
392	231FA04522	RAMISETTY CHANDANA	CSE
393	231FJ01064	SHAIK MOHAMMAD ATHEEF	BCA
394	201FA04294	EMANI.DURGA SRINIJA	CSE
395	211LA12003	GOBBURI LOKESWARI	AG
396	231FA04270	CHALICHAM DEEPAK CHOWDARY	CSE
397	211FA04080	BURRI SAHITHI	CSE
398	231FA04B25	NAGABHAIRAVA OSHITHA	CSE
399	211LA05012	PEDDAPULI REVANTH KUMAR	ECE
400	221LA08009	TADIBOYINA SAI BHARATH	MECH
401	231FA04132	PARABATHINA RAHUL BABU	CSE
402	231FA04899	MULPURI MUKUNDA NAGA DATTA SARMA	CSE
403	211FA05098	PATNALA PADMAVATHI	ECE
404	231FA18153	MASIMUKKALA SUNIL	AIANDML
405	211FA07140	MALLIPEDDI NAGA YAMINI	IT
406	211FW01062	KAMIINENI ADHITHYAA	BSC HONS
407	231FA04426	PERAM SWAPNA SINDHU	CSE
408	231FA01004	KONDAPATURI PAVITRA	BIOTECH
409	231FC01066	NALLAPATY GOPI NADH	MBA
410	221FA18109	SHAIK SALWAR	AIANDML
411	211LA05010	SURYADEVARA SAI LATHA	ECE
412	231FA04051	NANDA HARIPRIYA	CSE
413	221FA07120	GOLLAPUDI SHILPA	IT
414	221FA04507	DIVYA GUPTA	CSE
415	231FA04D31	YETESH NAIDU NAVABOTHU	CSE
416	211FA05046	MODUGAVARAPU SAI VINEETH	ECE
417	231FA06041	NYANZERO SHAME	EEE
418	221FA04342	P D S V KARTHIKEYA	CSE
419	231FA14018	YERUVA NEEHA MOHAN REDDY	BI

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420	211FA04077	JONNALAGADDA M V LAKSHMI HARSHITHA	CSE
421	231FA16036	PAGADALA HIMA VYSHNAVI	BM
422	221FA01059	POTHUGANTI GULNAZ MABUNNI	BIOTECH
423	221FA05117	MIRIYALA UDAYA BHASKAR	ECE
424	231FA04F53	GUDE LAKSHMI VENKATA HARSHITHA	CSE
425	231FA14051	CHITTEM KEERTHI	BI
426	211FA04319	DHANASIRI KAVYA	CSE
427	231FA03018	MASVIKENI PRINCE BATSIRAI	CIVIL
428	231FA04875	VEMIREDDY KEERTHI	CSE
429	221FA05083	SHAIK SAI BASHA	ECE
430	231FA04G76	SHANKAR KUMAR	CSE
431	221FM01007	POTTURI SONU SAHANA	BSC
432	231FA14106	BARAMA NAGA PRAGATHI	BI
433	231FA04281	BHIMAVARAPU KAVYA REDDY	CSE
434	211FA05065	BHIMINENI HEMA CHANDRA	ECE
435	221FW01017	KAJA SREE GAYATHRI	BSC HONS
436	211FA04363	MANDURI SAI ROSHINI	CSE
437	221FK01063	PONNEKANTI CHARAN PAVAN	BBA
438	201FA04275	PADMANABHUNI JEEVANI VENKATA NAGA SAI LAKSHMI	CSE
439	201FA15054	SYED RIYAZ AHAMMED	FT
440	231FK01102	NIDAMANURI SRAVANTHI	BBA
441	231FC01117	MORLA PAVAN	MBA
442	231FA04F17	SHAIK SAMEERA	CSE
443	211FJ01079	MOHAMMAD SUHANA BIBI	BCA
444	231FA04272	ORSU LIKHITA PRIYA	CSE
445	221FA04182	AVULA ASRITHA	CSE
446	201FA19015	YALAMARTHI VENKATESH	CSECS
447	211LA04005	GOGINENI LAKSHMI SRAVANI	CSE
448	231FA04077	SAI SREEJA GUJJIDI	CSE
449	221LA05013	THOTA ROHITHSAI	ECE
450	221FA01102	VADLAMANNATI AKSHAYA	BIOTECH
451	231FA01078	RUDRARAJU NEHA SRI	BIOTECH
452	231LA06028	BAKKA VARSHITHA	EEE
453	231FA04207	THIPPAREDDY YASHASWINI	CSE
454	201FA07076	RAUSHAN KUMAR MAURYA	IT
455	231FA04G63	NITISH KUMAR	CSE
456	231FC01037	MORLA MAHESH	MBA
457	201FA05093	DANTLA SUDHAKAR REDDY	ECE

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458	201FA05005	BOMMAGANTI KEERTHANA	ECE
459	221FA05187	DOSAKAYALA AKHILA	ECE
460	231FW01050	PORANKI DHYAN SAI SRI	BSC HONS
461	231LA05015	KONDAVEETI ANITHA	ECE
462	221FD01015	CHITTIBOINA UPENDRA	MCA
463	221LA12003	PANNALA KEERTHI SRI	AG
464	231FA14033	MIDABALA SRINIVAS	BI
465	221FJ01021	GOLI CHAKRA HARSHA SAI	BCA
466	231FC01009	SHAIK ABDUL AYAAZ	MBA
467	201FA04274	POLU VIJAY SHEKAR REDDY	CSE
468	211FA18013	BONAGIRI SAI GEETHA	AIANDML
469	231FA04989	PAIDIMARRY BHAVYA SRI	CSE
470	201FA04179	YARAGALLA KUMAR SAI	CSE
471	221FA04087	YARRAMSETTY MANOJ	CSE
472	221FJ01076	VADDINENI SAI PRAKHYA	BCA
473	231FA07086	PARASARAM HANUMANTH SRI VATSAVA	IT
474	221FA23062	TUMMALA SOMASEKHAR	DS
475	231FA04C94	PASUMARTHI SRI PRASANTH	CSE
476	231FA16046	JAMM MAYIIK MICCHAR DENG	BM
477	231FA18369	SURAVARAPU BHAGYA NANDINI	AIANDML
478	211FA18010	JULURI SHIVA SAI	AIANDML
479	231FC01105	GODAVARTHI V NAGA LAKSHMI SUBHANJALI	MBA
480	211FA18018	SIDDAMSETTI VAMSI KRISHNA	AIANDML
481	201FA16030	TENALI JASWANTH	BM
482	221FA01138	KROVI VENKATADATTASAI MADHUNANDHANAABHIRAM	BIOTECH
483	201FA04289	BONAM PRAVEEN KUMAR	CSE
484	211FA04620	GUNDAVARAPU KIRAN MARUTI RANGA SAI SRI	CSE
485	221FA04430	YELLA SAI KRISHNA	CSE
486	221FA18167	NUTHI GEETHANJALI	AIANDML
487	231FA05067	KOLLIPARA RISHITHA	ECE
488	201FA05016	GUDIBANDI AVINASH BHARGAV REDDY	ECE
489	211FA05303	AMUDALA SAI BABJI	ECE
490	211FK01090	SHAIK KHAJA MOINUDDIN	BBA
491	221FA04620	TATIREDDY HIMAJA REDDY	CSE
492	221FA07020	JONNADULA DIVYA SRI	IT
493	221LA06011	SHAIK GULAB SHA	EEE

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494	201FA04099	JANGA NAGA VENKATA GANESH	CSE
495	231FW01017	GANGULA NAGA SIDDESWARI	BSC HONS
496	231LA05026	PALLAPOTHU KIREETI	ECE
497	231FA07032	SOMALAHGARI PREM CHAND	IT
498	231FA04382	VUYYURU PAVANA BINDU	CSE
499	211FK01145	SAKALABATHULA MONALISA	BBA
500	231FA14083	TALUPULA TANUJA	BI
501	231FA18184	SHAIK ARSH AFROZ	AIANDML
502	231FA04F45	GORANTLA JAYA VARSHINI	CSE
503	231FA04487	KOLLIPARA BHUVANA VENKATA LAKSHMI ANUJA	CSE
504	231FA05022	VENNAPUSA ANUGNA	ECE
505	231FA04733	VELPULA BHAGYALAKSHMI	CSE
506	231FA04945	ARUMALLA SIRIVENNALA	CSE
507	221FA04117	PASUPULETI YESUBABU	CSE
508	211FA04128	ANNAM JAYASRI	CSE
509	231FA18436	IRRI VENKATA SAI KARTHIK	AIANDML
510	221FA02004	EMMANUEL SIMON MARTIN SEBIT	CHEM
511	221FA04198	VUYYURU JYOSHIKA SRI	CSE
512	221FA05188	MUNIPALLI AVINASH	ECE
513	211FA04271	BATHULA SAI TEJA	CSE
514	211FA04526	PALLAPU VAMSI	CSE
515	211FJ01023	DEVARAPALLI SATHYA PRAKASH	BCA
516	231FC01084	KUKKALA POOJITHA	MBA
517	211FA04145	RAYAVARAPU NIHARIKA	CSE
518	211FA08032	KATLA NITIN ASRITH	MECH
519	221FA04329	PEMMASANI SRI KRISHNA SAI	CSE
520	221FA07085	YENDLURI SRI LAKSHMI NAGA GREESHMA	IT
521	221FA04223	KANDUKURI SIRISHA	CSE
522	221FA18052	SANDHU BHARAT SAI	AIANDML
523	231FA05261	MURUKUTLA NAMITHA	ECE
524	221FA07032	ALLU MAHESH POTHAN	IT
525	231FM01017	MANDE BHANU TEJA	BSC
526	231FA18442	NICHENAKOLLA VEERENDRA CHAKRI	AIANDML
527	211FA21006	CHILAKA LOKESH JAYA RAO	RA
528	211FJ01075	GUDE HARIKA	BCA
529	231FA04E54	SHALINI KUMARI	CSE
530	231FA04793	MOGILI GOPI CHAND	CSE
531	211FA04099	PUVVADA SOUMYA	CSE

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532	221FW01094	NOOTHI GAYATHRI PRIYA	BSC HONS
533	231FA04737	PAGOLU SAMBASIVARAO	CSE
534	221FA05079	PANIDAPU VARUN KANTH	ECE
535	211FA07095	GUDIPATI VINITA	IT
536	231FA14071	SHAIK SANA KOUSAR	BI
537	211FA07138	SAI NITHEESH BIKKASANI	IT
538	231FW01069	VENNA TEJASWI	BSC HONS
539	231FA03019	MATUMIKA ANASHE CHANTELE	CIVIL
540	211FA04049	JAMIGUMPULA MANIKANTA	CSE
541	231FW01024	JAMMULA AMRUTHA SOWDHAMINI	BSC HONS
542	201FA01093	UPPUTURI SYAM KUMAR GUPTA	BIOTECH
543	221FA04265	TADIKAMALLA SOWMYA SRI	CSE
544	221FK01088	POLISETTY S H N MANIKANTA	BBA
545	231FA18400	YEPURI REVANTH	AIANDML
546	231FA04169	MOHAMMAD AATHIYA	CSE
547	231FA14092	DUGGEMPUDI AKHIL REDDY	BI
548	231LA03003	PAYYAVULA SIVA SANKAR	CIVIL
549	211FA05145	RAMINENI GAYATHRI SAI	ECE
550	231FA07048	MUPPA KALYANI	IT
551	221FA01073	YARLAGADDA AANATHI	BIOTECH
552	231FW01095	MANGUNDU TANAKA	BSC HONS
553	231FA23019	PASAM HARSHITH SAI	DS
554	221FA04028	KALLAM SRIDHAR REDDY	CSE
555	221FA04726	KUMBALA AJAY KUMAR	CSE
556	231FA01118	SHAIK SHARMILA	BIOTECH
557	221FA04006	NARALASETTI BALA SAI	CSE
558	221FW01163	DHARMIREDDI TEJASRI	BSC HONS
559	221FA19013	SUGGUNA RAMYA SRI	CSECS
560	221LA05009	AKULA SAI CHARITH	ECE
561	211FA04424	PAMMI SOWJANYA	CSE
562	231FA07062	POLINA VIJAYENDRA BABU	IT
563	231FC01123	KURRE MOUNIKA	MBA
564	231FA01123	DUMPA PRANAYA SREE	BIOTECH
565	211FA04295	TOTA KAVYA SREE	CSE
566	211FA04120	MANDALA ABHISHEK	CSE
567	231FJ01048	SHAIK SONI	BCA
568	231FA04383	KAMINENI PREM KUMAR	CSE
569	231FA04336	JONNALA BHARGAVI	CSE
570	211FA15048	TADI BHAVYA VAISHNAVI	FT
571	211FA01136	KOLLAMMAGARI SREE LEKHA	BIOTECH

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572	221FA01164	SYED NAZIYA	BIOTECH
573	211FA01023	BOLISSETTY VENKATA LAKSHMI NAGA SUJANA	BIOTECH
574	211FA19052	GUDE TRIVENI	CSECS
575	231FA04A21	MAGULURI DIVYA SRI	CSE
576	231LA06003	VADUPU DURGA DINESH	EEE
577	231FA05304	AMAN KUMAR RAI	ECE
578	231FA07131	MOHAMMAD AMEEN HUSSAIN	IT
579	211FM01033	SANAM PRAVALLIKA	BSC
580	211FA15014	KUCHIPUDI RAMA LAKSHMI SUNANDHANA	FT
581	211FA05073	RENTAPALLA BALAMURALI KRISHNA	ECE
582	221FA01043	KODURU JAHNAVI SAI DURGA	BIOTECH
583	221FA07038	GODAVARTHI SASI NAGA VENKATA PADMA VASAVI	IT
584	211FA05222	PINNAKA CHAITANYA LAKSHMI	ECE
585	201FA14032	CHUNDURU MADHAN	BI
586	211FA04040	MANDADHI ALEKHYA	CSE
587	231FA05186	BILLALA JAYASRI	ECE
588	231FA04F18	KOPPARAPU LAKSHMI PAVANI	CSE
589	231FC01025	VEERANKI PAVANI	MBA
590	221FA04503	GUJJU JOSEPH ANAND KUMAR	CSE
591	221FA01099	UPPALA VARSHITHA	BIOTECH
592	231FA04833	KODALI HEMANJALI	CSE
593	231FA04524	GUBBA VENKAT	CSE
594	231FA14026	DONTHU SUMA JOSHNA	BI
595	221FA04156	KOTHURU VENKATA NAGA SAI KIRAN	CSE
596	221FA05225	CHERUKUMALLI SAI RAM	ECE
597	221FA05034	VARIKALLU ANKARAO	ECE
598	231FA04614	SAYED NAYEEM	CSE
599	231FK01095	MUTHINENI CHAITANYA	BBA
600	221FA14088	PATTIPATI JAI VENKAT	BI
601	231FA04970	PENUGONDA SREEKARA VENAKATANAGADURGASAIUDAY	CSE
602	221FA18092	GUNTURU TEJASWINI	AIANDML
603	231FA04756	SAKALABHAKTULA KOUSHIK	CSE
604	221FA05131	PUSALA P R V DATHATREYA	ECE
605	211FM01012	GUDAPATI MOUNIKA LAKSHMI DURGA	BSC
606	211FA18118	MANOJ DASARI	AIANDML
607	221FA18080	KAKUMANU VENKATA LAKSHMI ANJALI TEJASWI	AIANDML

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**University Extension Activity Council (UEAC)
Annual Report – 2023-24**

608	221FA23043	DONDETI KOUSHIK REDDY	DS
609	211FA07007	NADIMPALLI MANI SALYA KUMAR	IT
610	221FA04689	SHAIK ARSHADRABBANI	CSE
611	231FA23040	BOYIDI NAGA AKSHAYA	DS
612	221FA05096	VASIMALLA PRABHAS	ECE
613	231FA04762	CHILAKALA DURGA SIVA DHANUSH	CSE
614	231FA04821	CHAKRAVARAM UMA CHANDRA SEKHARA RAJU	CSE
615	221FA04738	AKSHAY KUMAR	CSE
616	221FA04227	AYINAPARTHI PURNA PRABHA ROHINI	CSE
617	221FC01053	KONDA KAVITHA	MBA
618	201FA04110	MUNDLAMURI AKHIL CHOWDARY	CSE
619	231LA18001	PADALA VISHWA BADRINADH	AIANDML
620	211LA03005	VALLEPU DURGA	CIVIL
621	211FA05257	SUNKARA DINESH KUMAR	ECE
622	211FA18053	MUPPALLA SOWMYA	AIANDML
623	231FA18155	BOLLIMUNTHA SRI PAVAN	AIANDML
624	231FA04716	KUNALA JITENDRA LAKSHMI NARAYANA PAVAN	CSE
625	201FA15044	PALLAMPARTHY SRI VARDHAN REDDY	FT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Skill Development**

Date: 09.02.2024

Venue: Vejanndla

On the 9th of February 2024, Awareness on Skill Development was organized by the NSS wing Biotechnology of VFSTR in the nearby Vejanndla village.

This event aimed to create awareness on skill development in the students provides awareness among the students, the students from the government high school were motivated to develop their skill sets. We educated them that in the future only knowledge doesn't help them in this competitive world but along with the knowledge they also should develop skills which will be helpful for them in the future. The target audience for this event was the students of a government high school in the nearby village of Vignan's University.

This event began at 2:30 PM with a brief introduction about the NSS program and the significance of the event, with a total number of 45 NSS coordinators and volunteers. In Conclusion, the awareness on skill development event organized by Team NSS of the Biotechnology department of Vignan University was a successful event that created awareness on the development of skills in student life.



List of Volunteers:

Awareness on Skill Development at Vejanndla on 09.02.2024			
S. No	Reg. No	Name	Branch
1	211FA01117	S.VARSHA	BT
2	211FA01079	SAI TEJA	BT

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**University Extension Activity Council (UEAC)
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3	221FA01092	P.GAYATHRI	BT
4	221FA01130	M.PRASHANTH	BT
5	221FA01104	J.TRIVENI	BT
6	221FA01112	HEMA HARSHINI	BT
7	221FA01146	A.M.HUSSAIN	BT
8	221FA01079	KANTHI	BT
9	221FA01069	ANANYA	BT
10	221FA01070	VARDHINI	BT
11	221FA01142	P.PAVANI	BT
12	221FA01136	A.CHANDRIKA	BT
13	221FA01137	ARUN REDDY	BT
14	221FA01063	HARSHAD	BT
15	221FA01206	SAHIL	BT
16	221FA01050	SK.SAMIMOON	BT
17	221FA01031	K.RAVEENA	BT
18	221FA01011	SIVA REDDY	BT
19	221FA01005	PRINCE KUMAR	BT
20	221FA01020	SUNNY SINGH	BT
21	221FA01020	NITESH KUMAR	BT
22	221FA01001	SAKLEIN RAZA	BT
23	221FA01030	SINDHU PRIYA	BT
24	221FA01014	T.VASUNDHARA	BT
25	221FA01012	AKHILA	BT
26	221FA01042	SOWMYA	BT
27	221FA14092	NUZHAL AKEEN	BT
28	221FA14109	JAYAM JAMES	BT
29	221FA14110	SARAH SANTANA	BT
30	221FA14076	SK.ANJUM	BT
31	221FA14072	AKHILA	BT
32	221FA01183	G.VIGNA	BT
33	221FA01167	D.MADHAVI	BT
34	221FA14033	SOWMYA	BT
35	221FA14013	POOJITHA NARA	BT
36	221FA14015	ALEKYA NAIDU	BT
37	221FA14020	HARSHITHA	BT
38	221FA14016	C.AFRIN	BT
39	221FA14026	P.PAVANI	BT



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**University Extension Activity Council (UEAC)
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40	221FA14028	S.HABIB	BT
41	221FA14047	GEETHIKA	BT
42	221FA14056	SATHWIKA	BT
43	221FA14059	SANJEEV	BT
44	221FA14055	VYSHNAVI	BT
45	221FA14004	S.BHARGAVI	BT



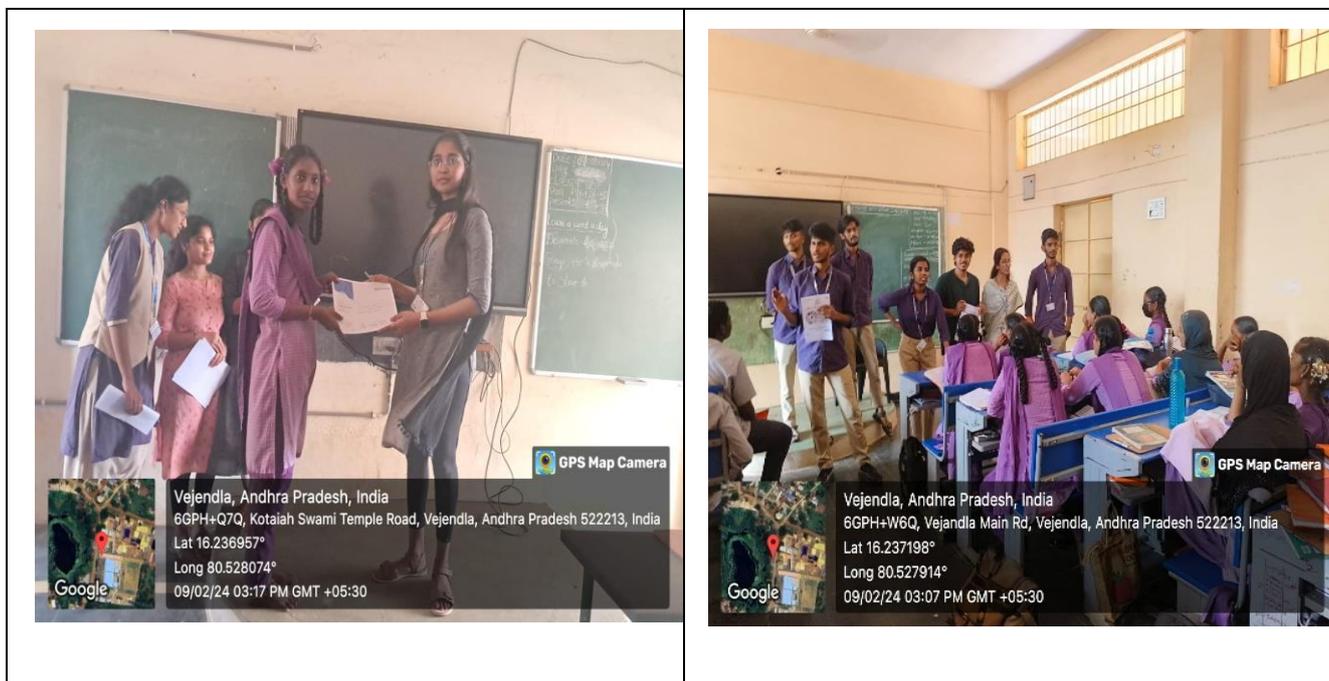
**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Cervical Cancer**

Date: 09.02.2024
Venue: Vejandla

On 9th of February 2024, Awareness on Cervical Cancer was organized by the NSS wing Biotechnology of VFSTR in the nearby Vejandla village.

The Aim of this event was to create awareness on cervical cancer among the students and to provide awareness among the students. The girl students from the government high school were taught about the symptoms of cervical cancer. We spoke to them about the symptoms of cervical cancer and how to approach it if any symptoms are found. After the session, certificates were distributed to them for participating in this campaign. The target audience for this event were the students at government high school in the nearby village of Vignan's University.

This event began at 02:30PM with a brief introduction about the NSS program and the significance of the event, with a total number of 45 NSS coordinators and volunteers. In Conclusion, the awareness on cervical cancer event organized by Team NSS of the Biotechnology Department of Vignan University was a success.



Awareness on cervical cancer on 09.02.2024

List of volunteers:

Awareness on Cervical Cancer at Vejandla on 09.02.2024			
S. No	Reg. No	Name	Branch
1	211FA01117	S.VARSHA	BT
2	211FA01079	SAI TEJA	BT
3	221FA01092	P.GAYATHRI	BT
4	221FA01130	M.PRASHANTH	BT

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**University Extension Activity Council (UEAC)
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5	221FA01104	J.TRIVENI	BT
6	221FA01112	HEMA HARSHINI	BT
7	221FA01146	A.M.HUSSAIN	BT
8	221FA01079	KANTHI	BT
9	221FA01069	ANANYA	BT
10	221FA01070	VARDHINI	BT
11	221FA01142	P.PAVANI	BT
12	221FA01136	A.CHANDRIKA	BT
13	221FA01137	ARUN REDDY	BT
14	221FA01063	HARSHAD	BT
15	221FA01206	SAHIL	BT
16	221FA01050	SK.SAMIMOON	BT
17	221FA01031	K.RAVEENA	BT
18	221FA01011	SIVA REDDY	BT
19	221FA01005	PRINCE KUMAR	BT
20	221FA01020	SUNNY SINGH	BT
21	221FA01020	NITESH KUMAR	BT
22	221FA01001	SAKLEIN RAZA	BT
23	221FA01030	SINDHU PRIYA	BT
24	221FA01014	T.VASUNDHARA	BT
25	221FA01012	AKHILA	BT
26	221FA01042	SOWMYA	BT
27	221FA14092	NUZHAL AKEEN	BT
28	221FA14109	JAYAM JAMES	BT
29	221FA14110	SARAH SANTANA	BT
30	221FA14076	SK.ANJUM	BT
31	221FA14072	AKHILA	BT
32	221FA01183	G.VIGNA	BT
33	221FA01167	D.MADHAVI	BT
34	221FA14033	SOWMYA	BT
35	221FA14013	POOJITHA NARA	BT
36	221FA14015	ALEKYA NAIDU	BT
37	221FA14020	HARSHITHA	BT
38	221FA14016	C.AFRIN	BT
39	221FA14026	P.PAVANI	BT
40	221FA14028	S.HABIB	BT
41	221FA14047	GEETHIKA	BT
42	221FA14056	SATHWIKA	BT
43	221FA14059	SANJEEV	BT
44	221FA14055	VYSHNAVI	BT
45	221FA14004	S.BHARGAVI	BT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Say No to Plastic Water Bottles**

Date:09.02.2024

Venue: ZP High School Vejjandla

9th February 2024, in our adopted school, Vejjandla conducted an event on “Say No to Plastic” to students in different parts of school locality. The 45 students, including section and chief organizers and coordinators and some volunteers, participated in this event. By educating students about the plastic water bottle and its disadvantages of using it. The side effects of plastic include environmental pollution, harm to wildlife, and the persistence of plastic waste, as it takes a long time to break down, contributing to long-lasting ecological impact.

Plastic bottles, made with certain chemicals, can pose health concerns. The chemicals may leach into the water, leading to potential disorders. Bisphenol A (BPA) is a well-known chemical in some plastics and has been linked to hormonal imbalances, reproductive issues, and developmental problems in children and adults. This makes a huge impact among students by knowing the reality of plastic water bottles.

Anyway, participants were highly enthusiastic to make it a big success. The students came to know about the plastic water bottle and the disadvantages of using it in our daily lives. By creating an open and supportive atmosphere, encourage students to discuss their feelings without fear of judgment, like emotional, psychological, and social well-being. Every step of the program was appreciated by the representatives of the administration. This event created a great stir among the students.



Awareness on Say no to plastic at Vejjandla high school on 09.02.2024

List of Volunteers:

Say No To Plastic at Vejjandla on 09.02.2024			
S.No	Reg.No	Name	Branch
1	211FA01117	S.VARSHA	BT

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2	211FA01079	SAI TEJA	BT
3	221FA01092	P.GAYATHRI	BT
4	221FA01130	M.PRASHANTH	BT
5	221FA01104	J.TRIVENI	BT
6	221FA01112	HEMA HARSHINI	BT
7	221FA01146	A.M.HUSSAIN	BT
8	221FA01079	KANTHI	BT
9	221FA01069	ANANYA	BT
10	221FA01070	VARDHINI	BT
11	221FA01142	P.PAVANI	BT
12	221FA01136	A.CHANDRIKA	BT
13	221FA01137	ARUN REDDY	BT
14	221FA01063	HARSHAD	BT
15	221FA01206	SAHIL	BT
16	221FA01050	SK.SAMIMOON	BT
17	221FA01031	K.RAVEENA	BT
18	221FA01011	SIVA REDDY	BT
19	221FA01005	PRINCE KUMAR	BT
20	221FA01020	SUNNY SINGH	BT
21	221FA01020	NITESH KUMAR	BT
22	221FA01001	SAKLEIN RAZA	BT
23	221FA01030	SINDHU PRIYA	BT
24	221FA01014	T.VASUNDHARA	BT
25	221FA01012	AKHILA	BT
26	221FA01042	SOWMYA	BT
27	221FA14092	NUZHAL AKEEN	BT
28	221FA14109	JAYAM JAMES	BT
29	221FA14110	SARAH SANTANA	BT
30	221FA14076	SK.ANJUM	BT
31	221FA14072	AKHILA	BT
32	221FA01183	G.VIGNA	BT
33	221FA01167	D.MADHAVI	BT
34	221FA14033	SOWMYA	BT
35	221FA14013	POOJITHA NARA	BT
36	221FA14015	ALEKYA NAIDU	BT
37	221FA14020	HARSHITHA	BT
38	221FA14016	C.AFRIN	BT
39	221FA14026	P.PAVANI	BT
40	221FA14028	S.HABIB	BT



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41	221FA14047	GEETHIKA	BT
42	221FA14056	SATHWIKA	BT
43	221FA14059	SANJEEV	BT
44	221FA14055	VYSHNAVI	BT
45	221FA14004	S.BHARGAVI	BT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Swatch Vignan**

Date: 10.02.2024
Venue: VFSTR

We, the team UEAC have conducted the “Swatch Vignan” event on 10-FEB-2024 to inculcate the habitat of cleanliness and hygiene maintenance. The main motto of the event is to bring awareness among the students about cleanliness and its importance.

Every week it has been organized in some part of the university, but for the first time the event has been conducted in all blocks of the university. The event was started by 2:00 PM with the presence of all the core team, vertical leads, vertical members, section coordinators and volunteers. This includes around 100 members from different departments. The Objective of the cleanliness drive is to get rid of all the non-biodegradable waste like plastic covers, plastic straws, rubbers, toxic substances, fibres and thermocouples and clean university premises. Our UEAC team members, including the core team, vertical leads, vertical members, section coordinators and volunteers, gathered in college. The event started by 2:00 PM with 362 volunteers and was completed at 4:00PM.



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**University Extension Activity Council (UEAC)
Annual Report – 2023-24**

List of Volunteers:

SWACHH VIGNAN on10.02.2024			
S.No	Reg.No	Name of the Student	Branch
1	211FM01058	ENDLA DIVAKAR REDDY	BSC
2	201FA04462	ARIMANDA DHEERAJ REDDY	CSE
3	221FJ01047	MOHAMMED AHMED KHALID AHMED	BCA
4	201FA04170	TIRUMALASETTY PAVAN KUMAR	CSE
5	211FW01011	ANUMULA VENKATA RAMANJANEYULU	BSC HONS
6	231FC01119	KANCHUGANTLA SRINIVAS GOPI	MBA
7	231FA23040	BOYIDI NAGA AKSHAYA	DS
8	231FA04F05	ALA TANUJA	CSE
9	181FA01142	KASULA VENKATA SAI KUMAR RAJA	BIOTECH
10	211FA04632	KANCHINADHAM SRI PRANATHI	CSE
11	191FA05094	KAKARAPARTHI SESA RAO	ECE
12	231FA14011	GUDAPATI GNANA AASRITHA	BI
13	201FA05076	DONTHINENI SIVA KRISHNA	ECE
14	221FK01094	SUMI KUMARI	BBA
15	211FJ01023	DEVARAPALLI SATHYA PRAKASH	BCA
16	231FA05304	AMAN KUMAR RAI	ECE
17	231LA06003	VADUPU DURGA DINESH	EEE
18	221FA05096	VASIMALLA PRABHAS	ECE
19	231FA04C72	RAMINENI KAILASH	CSE
20	221FA04736	PRATYUSH KUMAR	CSE
21	231FW01095	MANGUNDU TANAKA	BSC HONS
22	201FA19006	BADE RISHIKA	CSECS
23	201FA04267	GADIYAMULA SIVA GANESWARA RAO	CSE
24	211LA03005	VALLEPU DURGA	CIVIL
25	211FW01020	EMULA BAJI BABU	BSC HONS
26	221FD01032	KANAKAM SAI PREETHI	MCA
27	231FA01044	ELETI BENSON	BIOTECH
28	231FJ01030	BOINA NAGA MARUTHI KRISHNA	BCA
29	221FW01061	NANDAM PHANINDRA SUBHASH	BSC HONS
30	201FA01093	UPPUTURI SYAM KUMAR GUPTA	BIOTECH
31	231FA23096	YERUVA VENKATA SATISH KUMAR REDDY	DS
32	221FA04530	NOMINI BALA PRASANA BOPANA	CSE
33	221FA04685	TIYYAGURA KARTHIKEYAN REDDY	CSE
34	231FA18390	KORUKONDA HIMA BINDU	AIANDML
35	221FA07089	JAKKAM LAVANYA	IT

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36	211FA18132	MENDU SRAVANTHI	AIANDML
37	231FA18442	NICHENAKOLLA VEERENDRA CHAKRI	AIANDML
38	221FA05060	PERAM TANUJA	ECE
39	231FW01039	MANTRIPRAGADA LALITHA BALA TRIPURA SUNDARI	BSC HONS
40	231FA03018	MASVIKENI PRINCE BATSIRAI	CIVIL
41	231FA04871	JONNADULA ABHIRAM	CSE
42	231FA04B95	SHAIK MUZEEF	CSE
43	211FA05111	YARLAGADDA RAMYA SHREE	ECE
44	231FA04207	THIPPAREDDY YASHASWINI	CSE
45	231FA18062	PRAGADA KUMAR	AIANDML
46	231FW01050	PORANKI DHYAN SAI SRI	BSC HONS
47	211LA05012	PEDDAPULI REVANTH KUMAR	ECE
48	221FA05041	CHATRA SRAVANI	ECE
49	231FA23091	KOYA JHANSI	DS
50	221FA01059	POTHUGANTI GULNAZ MABUNNI	BIOTECH
51	201FA04425	PEDDOJU VENKATA NAGARAJUNA	CSE
52	201FA04099	JANGA NAGA VENKATA GANESH	CSE
53	231FK01042	JAMPANI SAI PRAVALLIKA	BBA
54	221FA04381	MAKHAM BALA LAKSHMI SUJITH	CSE
55	201FA01092	PERUMALLA PRADEEPTHI NAVYA	BIOTECH
56	221FA14085	VUYYURU KESAVI HIMABINDHU	BI
57	211FA04431	MANDADAPU HRUSHIKESH	CSE
58	231FA18413	GUDE MADHU	AIANDML
59	231FA04844	KARI POOJITHA	CSE
60	231FA06041	NYANZERO SHAME	EEE
61	221FA18057	BANDLAMUDI MOUNIKA	AIANDML
62	221FA14031	SHRUTI KUMARI	BI
63	231FK01101	DASARI HIMAGIRI	BBA
64	231FJ01064	SHAIK MOHAMMAD ATHEEF	BCA
65	221FA15025	MOHAMMED IRFAN	FT
66	231FA04F53	GUDE LAKSHMI VENKATA HARSHITHA	CSE
67	231FA04672	PATHURI SAICHANDH	CSE
68	221FJ01044	MOHAMED ADAM HASSAN ADAM	BCA
69	211FA04451	SRUNGAVARAPU HARSHA VARDHAN	CSE
70	211FA04602	JETTI SUBHASHINI	CSE
71	221FW01130	PODILI SRI SAI GOPI KRISHNA	BSC HONS
72	231FA04G76	SHANKAR KUMAR	CSE
73	231FA18094	GANGAVARAPU DILEEP CHANDU	AIANDML

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74	221FA18080	KAKUMANU VENKATA LAKSHMI ANJALI TEJASWI	AIANDML
75	211FA18010	JULURI SHIVA SAI	AIANDML
76	231FA01078	RUDRARAJU NEHA SRI	BIOTECH
77	221FA04118	SHIVAM KUMAR	CSE
78	201FA07057	KAKANI NAVYA SRI	IT
79	231FW01024	JAMMULA AMRUTHA SOWDHAMINI	BSC HONS
80	221FJ01010	BAPATLA SOMESWAR	BCA
81	231FA04171	YERRIBOINA AMRUTHA	CSE
82	211FA04084	MOVVA VENKATESH	CSE
83	201FA07069	RASAMSETTY G V L BHARATH	IT
84	231LA05024	KADADALAPU VENKATA SIVA TEJA	ECE
85	211FW01044	TADIGIRI RATNA KUMARI	BSC HONS
86	211FA04077	JONNALAGADDA M V LAKSHMI HARSHITHA	CSE
87	221FA04603	GNANESHWAR REDDY DONTIREDDY	CSE
88	211FA04134	RAHUL CHANDRA	CSE
89	231FA14106	BARAMA NAGA PRAGATHI	BI
90	221FA04658	MALLADI POOJITHA	CSE
91	231FA05251	SHAIK FAYAZ	ECE
92	231FA04626	BELLAM SAI CHARAN	CSE
93	231FA04A82	ALLAM VARSHINI	CSE
94	231LA05015	KONDAVEETI ANITHA	ECE
95	211FA04099	PUVVADA SOUMYA	CSE
96	221FA14088	PATTIPATI JAI VENKAT	BI
97	211FA04116	JAMPANI BHAVYASREE	CSE
98	221FA01087	SURE LAKSHMI SAI SREE	BIOTECH
99	221FC01027	YELURI ADITHYA MANIKANTA	MBA
100	231LA05026	PALLAPOTHU KIREETI	ECE
101	221FA01043	KODURU JAHNAVI SAI DURGA	BIOTECH
102	201FA04289	BONAM PRAVEEN KUMAR	CSE
103	231LA03003	PAYYAVULA SIVA SANKAR	CIVIL
104	231FA04945	ARUMALLA SIRIVENNALA	CSE
105	221FA01138	KROVI VENKATADATTASAI MADHUNANDHANAABHIRAM	BIOTECH
106	231FA04878	KASSETTY LOHITH KUMAR	CSE
107	211FA04620	GUNDAVARAPU KIRAN MARUTI RANGA SAI SRI	CSE
108	231FC01117	MORLA PAVAN	MBA
109	211FA04426	VUDUTHA LIKITHA	CSE
110	231FC01023	KOPPURAVURI CHAITANYA SAI RAM	MBA

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111	231FA20010	AMARTALURU SRUJEETH GUPTA	CSBS
112	211FA04220	CHINTHAPALLI BHAVANA CHOUDARY	CSE
113	211FA04475	ANUSHKA	CSE
114	211LA05038	SANIKOMMU SRIKANTH REDDY	ECE
115	231FA16046	JAMM MAYIIK MICHAR DENG	BM
116	231FA04281	BHIMAVARAPU KAVYA REDDY	CSE
117	211FA05289	NEELAM PHANEENDRA SAI	ECE
118	201FA04213	AVULA HARIKA	CSE
119	221FK01063	PONNEKANTI CHARAN PAVAN	BBA
120	211FA19009	GOGADA JYOTHI SUBRAHMANYAM SAI	CSECS
121	231FA18289	ALAPATI MEGHANA	AIANDML
122	231FA07113	APPIDI SAI KUMAR REDDY	IT
123	221FJ01043	MOGASATI VENKATA VISHNU MURTHY RAJU	BCA
124	221FW01118	NETHULA VENKATA RAVALI	BSC HONS
125	231FA01132	MERAZ ALI	BIOTECH
126	221FC01096	SYED KARISHMA KAREEM	MBA
127	201FA07068	KATIKI KALESWARAMMA	IT
128	221FA04620	TATIREDDY HIMAJA REDDY	CSE
129	221FA04265	TADIKAMALLA SOWMYA SRI	CSE
130	231FA04614	SAYED NAYEEM	CSE
131	211FA18053	MUPPALLA SOWMYA	AIANDML
132	211FA01062	BURRI GANESH	BIOTECH
133	221FA18045	KORRA VENKATA KRISHNA NAGA MANIKANTA	AIANDML
134	221FA07139	PERUMALLA SATYA VARUN	IT
135	221FA04073	BELLAMKONDA CHAITANYA NANDINI	CSE
136	211FM01031	POTTI KOTESWARI	BSC
137	231FA18275	MODEM RUTHWIK	AIANDML
138	231FA19056	GANTA BHARGAVI	CSECS
139	211LA06023	THOTA INDU	EEE
140	231FW01048	PATHAN SAMEENA KHANAM	BSC HONS
141	221FA04282	TADIKONDA BHAGAT SAI	CSE
142	221FA05225	CHERUKUMALLI SAI RAM	ECE
143	201FA18009	SANAGALA BHAVANA	AIANDML
144	231FA23027	MALLINA SUSMITHA	DS
145	221FA04066	GUDAPATI PUJITHA	CSE
146	221FA18130	JASTI RAMAKRISHNA	AIANDML
147	231FA05033	JASTI UDAY TEJA	ECE
148	211LA06015	PATHAN MOHAMMED KHAN	EEE

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149	211FM01012	GUDAPATI MOUNIKA LAKSHMI DURGA	BSC
150	201FA04326	INDALA JYOTHIRMAYEE	CSE
151	231FA04F10	JAMMULA BHANU TEJA	CSE
152	211FA04390	PARIMI VENKATA SAI YOGESWAR	CSE
153	211FA04590	VISSA RAJA SAI SUMANTH	CSE
154	231FA18450	DIVI GOWTHAM CHOWDARY	AIANDML
155	231FA04D54	KATTIKA KARTHIK VARMA	CSE
156	201FA14002	SURASANI VARUN KUMAR REDDY	BI
157	211LA08017	SHAIK SHAKEEL	MECH
158	221FA07098	KATTA VAISHNAVI	IT
159	221FA14065	RAYIDI SRI SAI CHINMAI	BI
160	201FA07049	BAVIRISETTY PRASANNA KUMAR	IT
161	221FA23043	DONDETI KOUSHIK REDDY	DS
162	231FA04339	UDDANDA CHAKRAVARTHI	CSE
163	231FA04426	PERAM SWAPNA SINDHU	CSE
164	211FA08007	BATTULA KALYAN RAM	MECH
165	211FA04049	JAMIGUMPULA MANIKANTA	CSE
166	201FA14016	CHIRALA SRAVANI	BI
167	211FW01007	KOTIKALAPUDI SUHAS PAUL	BSC HONS
168	211FA04034	LINGINENI LAKSHMI SOWJANYA	CSE
169	211FK01115	YEPURI VIJITHA	BBA
170	211FA07054	KATARU VEERA SHANMUKA	IT
171	221FA05199	NAGUMOTHU ROSHINI	ECE
172	221FC01125	CHANDOLU MANIDEEP	MBA
173	211FA01018	GOBATTINI CHANDANA	BIOTECH
174	231FA18402	TAVITI JWALA NARASIMHA	AIANDML
175	231FA14033	MIDABALA SRINIVAS	BI
176	221FA23062	TUMMALA SOMASEKHAR	DS
177	221FA04698	PEDDI AMRUTHA NAGA VALLI	CSE
178	201FA01072	MADALA HIMA SRI	BIOTECH
179	221FA23011	PALAPARTHI SHARON SUKEERTHANA	DS
180	231FA18369	SURAVARAPU BHAGYA NANDINI	AIANDML
181	211FA04460	RAVIPUDI LAKSHMI PRASANNA	CSE
182	201FA01105	BATTULA DHARANI	BIOTECH
183	231FA04F47	MOTHE VAISHNAVI	CSE
184	231LA22003	KONDLAPALLI GOWTHAM	TT
185	211FA04271	BATHULA SAI TEJA	CSE
186	221FA01010	MALLADI PRAVALLIKA	BIOTECH
187	221FA01017	VELAGA LIKHITHA GAYATHRI	BIOTECH
188	211FA02002	GUDIPUDI JAGADISHWAR RAO	CHEM

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189	231FC01123	KURRE MOUNIKA	MBA
190	221FC01133	AADURI PAVAN NAGA VENKATA SEKHAR	MBA
191	211FA19026	GURIVINDAPALL BHANU PRAKASH	CSECS
192	221FA04503	GUJJU JOSEPH ANAND KUMAR	CSE
193	231FA18435	JAMMULA RUPAK BALAJI	AIANDML
194	231FK01087	DHANU SOWRAV KUMAR	BBA
195	221FA04063	VANKA BHUVANA SAI MOUNEENDRA	CSE
196	231FA04A84	MAKINENI BALA BHOOMIKA	CSE
197	201FA04175	VEERLA LAKSHMI NEEHARIKA	CSE
198	211FA18018	SIDDAMSETTI VAMSI KRISHNA	AIANDML
199	231FA04793	MOGILI GOPI CHAND	CSE
200	211FA06014	BACHHANABOINA SAI PUJITHA	EEE
201	201FA07062	CHINTAKUNTLA VIVEK REDDY	IT
202	211FM01006	BANDARU NANDINI	BSC
203	221LA06009	RAAVI SATYANARAYANA	EEE
204	211FA07105	SHAIK AASIF	IT
205	201FA04294	EMANI.DURGA SRINIJA	CSE
206	221FA18011	MACHARLA LAKSHMI SRINIVASA BHARGAVA SAI	AIANDML
207	231FA05064	SHAIK PAKALAPATI MABU SUBHANI	ECE
208	231FA16054	BURHAN LATEEF	BM
209	201FA04074	REDDYVARI UDAY KUMAR REDDY	CSE
210	231FA05067	KOLLIPARA RISHITHA	ECE
211	231FA04028	PUSHADAPU GIRI SIVA SUBRAHMANYAM	CSE
212	231FA07027	DASARI VENKATA SRIKANTH	IT
213	221FA01027	NITISH KUMAR	BIOTECH
214	201FA15080	GOPALAPPAGARI UDAY	FT
215	231FC01129	KARRI BHARGAVI	MBA
216	221FA04689	SHAIK ARSHADRABBANI	CSE
217	231FA18155	BOLLIMUNTHA SRI PAVAN	AIANDML
218	231FW01089	CHIKOTO TAPIWANASHE MUNMARADZI	BSC HONS
219	231FA04B40	PALEPU M N V SAI RANGA PRABHA	CSE
220	221FA18109	SHAIK SALWAR	AIANDML
221	231FC01145	TAMMA VINAY KUMAR REDDY	MBA
222	221FA01096	PASAPU PRANATHI LAKSHMI	BIOTECH
223	221FA06033	RAJNIKANT KUMAR	EEE
224	221FM01007	POTTURI SONU SAHANA	BSC
225	221FA05176	LINGA NANDINI	ECE
226	231FA04444	POLISSETTY JHANSI PRASANNA LAKSHMI	CSE
227	231FA18200	KOTA VARUN	AIANDML



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228	221FA04133	VANDANAPU RESHMA SUREKHA	CSE
229	231FD01074	LUKKA VENKATA SRI RAM	MCA
230	211FA05222	PINNAKA CHAITANYA LAKSHMI	ECE
231	201FA16027	SHAIK AARIFA	BM
232	201FA04160	MADDIREDDY VENKATA SESA SAI SRIJA	CSE
233	201FA04382	ALLA HEMA NISHITA	CSE
234	211FJ01070	GAJJALA BHARGAV MOULI	BCA
235	221FA04370	EDA SAI NITHIN REDDY	CSE
236	211FA05109	MUNNANGI HARI VARDHAN	ECE
237	231FA04455	THUMMA YUVA KIRAN REDDY	CSE
238	221FA19048	KAMINENI LEELA TAPASWI	CSECS
239	221FW01163	DHARMIREDDI TEJASRI	BSC HONS
240	231FA04132	PARABATHINA RAHUL BABU	CSE
241	231FA18226	KROTHAPALLI HARSHA VARDHAN	AIANDML
242	211FA05073	RENTAPALLA BALAMURALI KRISHNA	ECE
243	221FA07123	KONDRAGANTI LOKESH CHOWDARY	IT
244	231FA18436	IRRI VENKATA SAI KARTHIK	AIANDML
245	221FA19013	SUGGUNA RAMYA SRI	CSECS
246	231FA04288	TIRUKKOVALLURI MONALISA	CSE
247	221FA06012	SUNKARA EESWARA REDDY	EEE
248	221LA08009	TADIBOYINA SAI BHARATH	MECH
249	231FA04833	KODALI HEMANJALI	CSE
250	211FA14036	GORANTLA BALA SARASWATHI	BI
251	231FA18249	KOMMANABOINA SUDHEER KUMAR	AIANDML
252	211FA04374	EEVURI UMESH REDDY	CSE
253	221LA03009	DANTHALA ANAND PAL	CIVIL
254	211FA07075	DIRISINALA NAGA VARDHINI	IT
255	201FA05067	TANGALLAMUDI RAMA SAI	ECE
256	221FA18038	SURE RAGHUNADH REDDY	AIANDML
257	211FA04526	PALLAPU VAMSI	CSE
258	231FA14112	MOHAMMED FATHIMA KHAN	BI
259	231FA04270	CHALICHAM DEEPAK CHOWDARY	CSE
260	231FA04521	BOLISSETTY V N S K MAHALAKSHMI	CSE
261	231FA18045	MUPPASANI VENKATA SAMYUKTHA	AIANDML
262	231FA18184	SHAIK ARSH AFROZ	AIANDML
263	211FA01014	TUPAKULA SANDHYA	BIOTECH
264	211FA08006	BODDU HARSHA VARDHAN	MECH
265	231FA04A21	MAGULURI DIVYA SRI	CSE
266	211FA04295	TOTA KAVYA SREE	CSE
267	211FA05194	VEMULAPATI SUBBA REDDY	ECE

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268	231FA05183	MAKUTAM LAKSHMI DURGA JYOTHI	ECE
269	221FA04151	GANPISETTY MANEESHA	CSE
270	201FA04355	AYINAMPUDI NAGA SRIVALLI	CSE
271	211FJ01041	NIKITHA BEERAM	BCA
272	211FA08010	BUTHUKURI MANIKANTA REDDY	MECH
273	221FA18092	GUNTURU TEJASWINI	AIANDML
274	211FK01076	RAVELLA HEMANTH SAI	BBA
275	221FA04080	MANNEPALLI RAJESH	CSE
276	221LA12016	JUVVA RAVALIKA	AG
277	231FA14083	TALUPULA TANUJA	BI
278	211FA04319	DHANASIRI KAVYA	CSE
279	201FA02006	PURUSHOTAM KUMAR	CHEM
280	231FA14071	SHAIK SANA KOUSAR	BI
281	231FA01004	KONDAPATURI PAVITRA	BIOTECH
282	231FA05298	DASARI PRIDHVI MANJUNADH	ECE
283	211FA04582	VARANASI N V SIVA LAKSHMI NARAYANA	CSE
284	231FK01066	VADRANAM POORNA BALAJI	BBA
285	231FA23105	BATTULA SUSHMITHA CHOWDARY	DS
286	221LA05013	THOTA ROHITHSAI	ECE
287	211FA14007	CHINTAM PUNVITH REDDY	BI
288	211FA04440	NERELLA GEETHA SREE	CSE
289	211FA06036	CHATTI GURU SAI KUMAR	EEE
290	221FA05203	GOGIREDDY RAMI REDDY	ECE
291	221FA04534	MODEM LAASYA	CSE
292	231LA12011	KANCHARLA SAHITHI	AG
293	211FA06010	VEMULA CHARAN	EEE
294	231FA04G83	YALAVARTHI MONIKA	CSE
295	231FA04532	SURAPUREDDY MEGHANA REDDY	CSE
296	231FA04716	KUNALA JITENDRA LAKSHMI NARAYANA PAVAN	CSE
297	231FA05226	YALAVARTHI MADHURI	ECE
298	211FA04363	MANDURI SAI ROSHINI	CSE
299	211FA04002	GORIGE GAYATHRI	CSE
300	221FA05187	DOSAKAYALA AKHILA	ECE
301	231FA04835	PALLAPOTHU MOHANA KRISHNA VENI	CSE
302	231FA04B87	KURRA BHANU SRI	CSE
303	211FK01090	SHAIK KHAJA MOINUDDIN	BBA
304	221FA05143	MATTAPARTHI VENKATESH	ECE
305	231FA07151	KANCHARLA SUMEERA	IT
306	201FA05005	BOMMAGANTI KEERTHANA	ECE

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307	201FA04248	DARLA PHANI PRAHARSHA	CSE
308	221FA01102	VADLAMANNATI AKSHAYA	BIOTECH
309	211FA06033	SUDA MARUTHI GOPI CHAND	EEE
310	221FA02004	EMMANUEL SIMON MARTIN SEBIT	CHEM
311	221FA04507	DIVYA GUPTA	CSE
312	231FA19085	KONDRAGUNTA JOSHIT SIMHA	CSECS
313	231FA18398	GUNA GOUTHAMI	AIANDML
314	211FA07072	GADE GOWTHAM SAI	IT
315	221FA04696	GUNTANALA VENKATAKRISHNA	CSE
316	231FK01141	RAVI KUMAR	BBA
317	221FA01150	NUNNA LIKHITHA SAI	BIOTECH
318	211FK01094	SHAIK RIHAN	BBA
319	231FA04263	DANTHULURI LOKESH BABU	CSE
320	221FA04117	PASUPULETI YESUBABU	CSE
321	231FA04B25	NAGABHAIRAVA OSHITHA	CSE
322	211FW01062	KAMIINENI ADHITHYAA	BSC HONS
323	211FM01033	SANAM PRAVALLIKA	BSC
324	231FA04660	VELPURI SAI MOUSHMI	CSE
325	221FA05160	MANTRAPUDI NIKHILA	ECE
326	211FA01002	VANAMA LAKSHMI PRIYANKA	BIOTECH
327	231FW01001	AKKALA KUSUMA	BSC HONS
328	231FA07086	PARASARAM HANUMANTH SRI VATSAVA	IT
329	231FA04B92	KATUKOTA PREAM KUMAR	CSE
330	231FA04353	ADDANKI GEETIKA	CSE
331	211FA05046	MODUGAVARAPU SAI VINEETH	ECE
332	221FA14035	GRANDHI MINUSHA KOWSALYA	BI
333	221FA18131	GURRALA RAGHU VARDHAN	AIANDML
334	221FA07120	GOLLAPUDI SHILPA	IT
335	221FA04493	VUYYURU HEMANTH	CSE
336	211FA05145	RAMINENI GAYATHRI SAI	ECE
337	231FA04522	RAMISETTY CHANDANA	CSE
338	231FA04C03	BODAPATI MAHESH	CSE
339	231FA04989	PAIDIMARRY BHAVYA SRI	CSE
340	231FA23011	DEVAKI GOPI KRISHNA KURAKULA	DS
341	201FA01075	KASARLA NARSI REDDY	BIOTECH
342	231FA14051	CHITTEM KEERTHI	BI
343	231FA23048	KAKUMANU KALANJALI	DS
344	231FA04C10	BOBBELLA GANESH	CSE
345	211FA15048	TADI BHAVYA VAISHNAVI	FT
346	201FA01117	KOYA TEJA	BIOTECH

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347	211FA21005	RAVINUTALA SREE SAI BHARGAV	RA
348	231FA05022	VENNAPUSA ANUGNA	ECE
349	231FA04312	SHAIK MUNEEER AHMED	CSE
350	211FA05023	GHANTA VIGNESH	ECE
351	211FA19052	GUDE TRIVENI	CSECS
352	231FA04487	KOLLIPARA BHUVANA VENKATA LAKSHMI ANUJA	CSE
353	211LA05009	BOLLU RAHUL	ECE
354	221FD01021	DUNDI KATHYAYANI REDDY	MCA
355	231FA04775	YARAGALLA SUNANDA	CSE
356	211FA06003	KODURU HARIKA NAGA LAKSHMI PRIYA	EEE
357	221FW01171	DEV SHANKAR THAKUR	BSC HONS
358	201FA05016	GUDIBANDI AVINASH BHARGAV REDDY	ECE
359	221FA04498	NALLAGORLA BHARGAVI	CSE
360	231FA05238	KANAMARLAPUDI SRIDHAR ANANTH KUMAR	ECE
361	221FA01063	NADIKATTU SUCHITA SHARON	BIOTECH
362	211FA04040	MANDADHI ALEKHYA	CSE



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Awareness on Food Wastage**

Date:10.02.2024

Venue: Vejandla Village

On the 10th of Fe 2024, Awareness on Food Wastage was organized by the NSS wing food technology of VFSTR in the nearby Vejandla village.

The Aim of this event was to create awareness on Food Wastage and to provide awareness among the Students, reducing the health problems caused by food adulteration and educating the People on the proper precautions. The target audience for this event was in the nearby village of Vignan's University. This event began at 10:30AM with a brief introduction about the NSS program and the significance of the event, with a total of 41 NSS coordinators and volunteers. The NSS unit has reached a total of 300 people from the nearby village for this event.

After the introduction, the awareness on Food Wastage. The attendees were provided with a brief about this event by explaining the harmful effects of various diseases. This was delivered by the NSS coordinators and the Volunteers. In Conclusion, the awareness on seasonal diseases event organized by Team UEAC of Vignan University was a successful event that created awareness on harmful effects of Food Wastage.



Awareness on Food Wastage at Vejandla on 10.02.2024

List of Volunteers:

Awareness on Food Wastage at Vejandla on 10.02.2024			
S. No	Reg. No	Name	Branch
1	211FA04425	D.SNEHA NAVYA SRI	FT
2	211FA04448	G. AKHILA	FT

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BANK**University Extension Activity Council (UEAC)
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3	211FA04473	V.KRISHNA LIKHITHA	FT
4	211FA04497	A.THRIVENI	FT
5	211FA04597	Y.SNEHA LATHA	FT
6	211FA04600	CH.HIMAJA	FT
7	211FA04502	K.NIHARIKA	FT
8	211FA04503	T.NAGA SRIDEVI	FT
9	211FA04272	K.AKSHAY KUMAR	FT
10	211FA04243	V.MANIKANTA	FT
11	211FA04505	G.MADHURI	FT
12	211FA04522	M.VENKATESH	FT
13	211FA04390	P.YOGESHWAR	FT
14	211FA04363	M.ROSHINI	FT
15	211FA04394	CH.MANOJ	FT
16	211FA04395	A.KOTI REDDY	FT
17	211FA04396	SK.SAMIYAN	FT
18	211FA04355	CH.VIJAY	FT
19	211FA04371	V.MANJUNADH	FT
20	211FA04100	S.AKANKSHA	FT
21	211FA04508	B.SANKEERTHAN REDDY	FT
22	211FA04425	D.SNEHA NAVYA SRI	FT
23	211FA04448	G.AKHILA	FT
24	211FA04473	V.KRISHNA LIKHITHA	FT
25	211FA04497	A. THRIVENI	FT
26	211FA04597	Y.SNEHA LATHA	FT
27	211FA04600	CH.HIMAJA	FT
28	211FA04502	K.NIHARIKA	FT
29	211FA04503	T.NAGA SRIDEVI	FT
30	211FA04272	K.AKSHAY KUMAR	FT
31	211FA04243	V.MANIKANTA	FT
32	211FA04505	G.MADHURI	FT
33	211FA04522	M.VENKATESH	FT
34	211FA04390	P.YOGESHWAR	FT
35	211FA04363	M.ROSHINI	FT
36	211FA04394	CH.MANOJ	FT
37	211FA04395	A.KOTI REDDY	FT
38	211FA04396	SK.SAMIYAN	FT
39	211FA04355	CH.VIJAY	FT
40	211FA04371	V.MANJUNADH	FT
41	211FA04100	S.AKANKSHA	FT



**University Extension Activity Council (UEAC)
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Awareness on Food Adulteration**

Date:10.02.2024

Venue: Vejjandla Village

On the 10th of Fe 2024, Awareness on Food Adulteration was organized by the NSS wing food technology of VFSTR in the nearby Vejjandla village.

The Aim of this event was to create awareness on Food Adulteration and to provide awareness among the Students, reducing the health problems caused by the Food adulteration and educating the People on the proper precautions. The target audience for this event were the in the nearby village of Vignan’s University.This event began at 10:30AM with a brief introduction about the NSS program and the significance of the event, with a total no of 41 NSS coordinators and volunteers. The NSS unit has reached a total of 300 people from the nearby village for this event.

After the introduction, the awareness on Food Adulteration. The attendees were provided with a brief about this event by explaining the harmful effects of various diseases. This was delivered by the NSS coordinators and the Volunteers.

In Conclusion, the awareness on seasonal diseases event organized by Team NSS of the FT department of Vignan University was a successful event that created awareness on the harmful effects of Food Adulteration.



Awareness on Food Adulteration at Vejjandla on 10.02.2024

List of Volunteers:

Awareness on Food Adulteration at Vejjandla on 10.02.2024			
S. No	Reg. No	Name	Branch
1	211FA04425	D.SNEHA NAVYA SRI	FT

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2	211FA04448	G. AKHILA	FT
3	211FA04473	V.KRISHNA LIKHITHA	FT
4	211FA04497	A.THRIVENI	FT
5	211FA04597	Y.SNEHA LATHA	FT
6	211FA04600	CH.HIMAJA	FT
7	211FA04502	K.NIHARIKA	FT
8	211FA04503	T.NAGA SRIDEVI	FT
9	211FA04272	K.AKSHAY KUMAR	FT
10	211FA04243	V.MANIKANTA	FT
11	211FA04505	G.MADHURI	FT
12	211FA04522	M.VENKATESH	FT
13	211FA04390	P.YOGESHWAR	FT
14	211FA04363	M.ROSHINI	FT
15	211FA04394	CH.MANOJ	FT
16	211FA04395	A.KOTI REDDY	FT
17	211FA04396	SK.SAMIYAN	FT
18	211FA04355	CH.VIJAY	FT
19	211FA04371	V.MANJUNADH	FT
20	211FA04100	S.AKANKSHA	FT
21	211FA04508	B.SANKEERTHAN REDDY	FT
22	211FA04425	D.SNEHA NAVYA SRI	FT
23	211FA04448	G.AKHILA	FT
24	211FA04473	V.KRISHNA LIKHITHA	FT
25	211FA04497	A. THRIVENI	FT
26	211FA04597	Y.SNEHA LATHA	FT
27	211FA04600	CH.HIMAJA	FT
28	211FA04502	K.NIHARIKA	FT
29	211FA04503	T.NAGA SRIDEVI	FT
30	211FA04272	K.AKSHAY KUMAR	FT
31	211FA04243	V.MANIKANTA	FT
32	211FA04505	G.MADHURI	FT
33	211FA04522	M.VENKATESH	FT
34	211FA04390	P.YOGESHWAR	FT
35	211FA04363	M.ROSHINI	FT
36	211FA04394	CH.MANOJ	FT
37	211FA04395	A.KOTI REDDY	FT
38	211FA04396	SK.SAMIYAN	FT
39	211FA04355	CH.VIJAY	FT
40	211FA04371	V.MANJUNADH	FT
41	211FA04100	S.AKANKSHA	FT



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University Extension Activity Council (UEAC) Annual Report – 2023-24 Awareness on Obesity

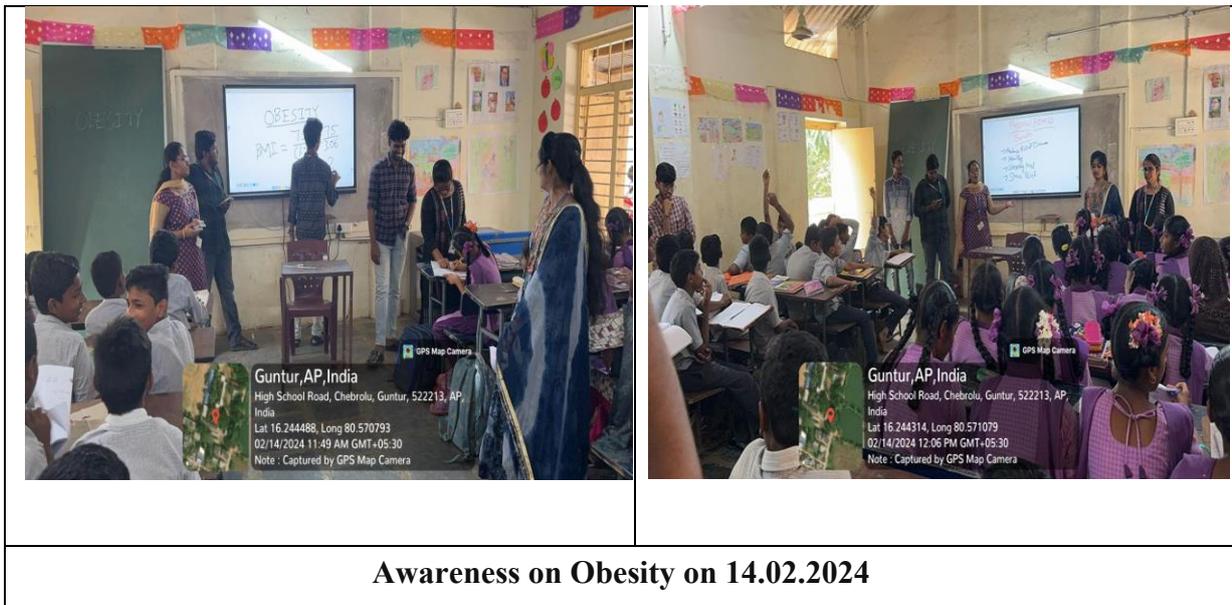
Date:14.02.2024

Venue: SangamJagarlamudi

We, the team UEAC of the Informational Technology department, have conducted the event about “Awareness on Obesity” on 14-February-2024 in sangamjagarlamudi ZPHS school. The main goal of having an event on obesity awareness for school students is to help them understand why being too heavy can be harmful. We want to teach them how it happens, why it's not good for their health, and what they can do to stay healthy. The idea is to make sure they know how to make smart choices, like eating well and being active. Our hope is that by learning about this early on, they'll be more likely to live healthy lives and avoid problems linked to being overweight.

The chief organizer, Chief Coordinator, Sec Coordinators and Volunteers of IT were participated in the event. Firstly, we all gathered on the block first floor in the university at 10:30 AM. We started from the university by 10:40 AM and reached the school by 11:00 AM. We started the event by 11:10 AM. Likewise, we interacted with the students for some time, and then we started explaining about the obesity. We explained what obesity is, how to know obesity, causes, diseases through obesity and precautions to get rid of obesity on the smart board. Students listened to us very well, and they enjoyed a lot.

After completion of giving lectures to the students, we ended the event by 12:15 PM. We returned to the college by 12:45 PM. A total of 21 volunteers, including sec Coordinators, Chief organizers, and Chief coordinators, participated in the event very Enthusiastically.



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**University Extension Activity Council (UEAC)
Annual Report – 2023-24**

List of Volunteers:

Awareness on Obesity on 14.02.2024			
S.NO	NAME	REG.NO	Branch
1	DIVYA	211FA07012	IT
2	RAJESH	211FA07019	IT
3	RAVI TEJA	211FA07025	IT
4	YASWANTH BABU	211FA07033	IT
5	MUSKAN	211FA07039	IT
6	RESHWANTH	211FA07051	IT
7	VAMSHI	211FA07077	IT
8	YASHWANTH	211FA07087	IT
9	GOPI KRISHNA	211FA07089	IT
10	SARVANI	211FA07108	IT
11	SWATHI	211FA07113	IT
12	VIJAY KEERTHAN	211FA07114	IT
13	VIJAY	211FA07135	IT
14	MANIKANTA	211FA07146	IT
15	VUHARIKA	221FA07048	IT
16	TRIVENI	221FA07062	IT
17	JAYANTH	221FA07074	IT
18	MOHAN	221FA07099	IT
19	SHYAMALA	221FA07112	IT
20	KAVITHA	221FA07131	IT
21	SANTHI	221FA07133	IT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Physical Fitness**

Date:14.02.2024

Venue: ZPH School SangamJagarlamudi

We, the team UEAC of the Informational Technology department, conducted the event about “Awareness on Physical Fitness” on 14-February-2024 in Sangamjagarlamudi ZPHS school. The primary goal of organizing an event to raise awareness about physical fitness for school students is to help them understand the importance of being active and staying fit. We want to teach them why exercise is good for their health, both physically and mentally. The aim is to encourage them to engage in regular physical activities, like playing sports or doing exercises, so they can grow up to be strong and healthy. By promoting awareness on physical fitness, we hope to instil lifelong habits that contribute to their overall well-being.

The chief organizers, Chief Coordinators, Sec coordinators, and Volunteers of IT participated in the event. First, we all gathered at U block ground floor of the university at 10:30 AM. We started from the university by 10:40 AM and reached the school by 11:00 AM. We started the event by 11:10 AM. Furthermore, we interacted with the students for some time, and then we started explaining about physical fitness. We explained physical fitness, the benefits of being fit, ways to get fit, and diseases caused by the lack of physical fitness on the smart board. The students listened to us very well, and they enjoyed it a lot.

After completion of giving lecture to the students, we ended the event by 12:15 PM. We returned to the college by 12:45 PM. All the 21 volunteers including sec Coordinators, Chief Organizer, and Chief Coordinator participated in the event very Enthusiastically.



Awareness on Physical Fitness on 14.02.2024

List of Volunteers:

Awareness on Physical Fitness on 14.02.2024			
S.NO	NAME	REG.NO	Branch
1	DIVYA	211FA07012	IT
2	RAJESH	211FA07019	IT

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**University Extension Activity Council (UEAC)
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3	RAVI TEJA	211FA07025	IT
4	YASWANTH BABU	211FA07033	IT
5	MUSKAN	211FA07039	IT
6	RESHWANTH	211FA07051	IT
7	VAMSHI	211FA07077	IT
8	YASHWANTH	211FA07087	IT
9	GOPI KRISHNA	211FA07089	IT
10	SARVANI	211FA07108	IT
11	SWATHI	211FA07113	IT
12	VIJAY KEERTHAN	211FA07114	IT
13	VIJAY	211FA07135	IT
14	MANIKANTA	211FA07146	IT
15	VUHARIKA	221FA07048	IT
16	TRIVENI	221FA07062	IT
17	JAYANTH	221FA07074	IT
18	MOHAN	221FA07099	IT
19	SHYAMALA	221FA07112	IT
20	KAVITHA	221FA07131	IT
21	SANTHI	221FA07133	IT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on the Nutritious Food**

Date: 17.02.2024

Venue: Vignan Junior College Vadlamudi

17th February 2024 in the Vignan Junior College, Vadlamudi NSS students from CSE Department conducted Awareness on Nutritional food items. 20 students from CSE department who were part of NSS had participated in this event, and they are divided in teams, and they visited different classes to give awareness on nutritious food to the students of teenage.

This may bring awareness among them to avoid junk food, which helps in improving their health and prevents them from falling sick. It's very important for every student to take care of their health, as health plays an important role to excel in studies and get good scores and grades.

Anyway, participants were highly enthusiastic to make it a big success. To conclude this program on raising awareness about nutritious food mandatory for every citizen, let us remember that our journey to better health and well-being is a shared one. We are sowing the seeds of a healthier, happier future for ourselves and generations to come.

Volunteers taught students about healthy food, its nutritional value, and health benefits. They showed them how to incorporate these foods into their diets, potentially leading to better eating habits, improved health, and a reduced risk of diet-related problems.



Awareness on Nutritious Food at Vadlamudi on 17.02.2024

List of Volunteers:

Awareness on Nutritious food at Vadlamudi on 17.02.2024			
S.No	Reg.No	Name	Branch
1	211FA04425	B.SANKEERTHAN REDDY	CSE
2	211FA04448	G.AKHILA	CSE
3	211FA04473	V.KRISHNA LIKHITHA	CSE
4	211FA04497	A.THRIVENI	CSE

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5	211FA04597	Y.SNEHA LATHA	CSE
6	211FA04600	CH.HIMAJA	CSE
7	211FA04502	K.NIHARIKA	CSE
8	211FA04503	T.NAGA SRIDEVI	CSE
9	211FA04272	K.AKSHAY KUMAR	CSE
10	211FA04243	V.MANIKANTA	CSE
11	211FA04505	G.MADHURI	CSE
12	211FA04522	M.VENKATESH	CSE
13	211FA04390	P.YOGESHWAR	CSE
14	211FA04363	M.ROSHINI	CSE
15	211FA04394	CH.MANOJ	CSE
16	211FA04395	A.KOTI REDDY	CSE
17	211FA04396	SK.SAMIYAN	CSE
18	211FA04355	CH.VIJAY	CSE
19	211FA04371	V.MANJUNADH	CSE
20	211FA04100	S.AKANKSHA	CSE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Career Guidance on CSE Branch**

Date: 17.02.2024
Venue : Vadlamudi

On 17th February 2024 in the Vignan Junior College, Vadlamudi NSS students from the CSE Department conducted a Career guidance program about the CSE branch. 10 students from the CSE department who were part of NSS participated in this event they were divided into teams and they visited different classes to spread awareness among the students studying in junior college. This event is aimed at providing knowledge to the students to choose their career wisely and efficiently based on their interest in different branches of CSE and their scope in the future. This helps them to explore different career paths, job opportunities, skills required to develop and educational pathways. We also tried to explain to them about trends and the job market in the IT Industry by discussing various topics such as Artificial Intelligence, Data Science and Cloud computing. We also shared about job opportunities created by these technologies. We encouraged them to ask questions and clarified them so far.

This career guidance event was successful by providing valuable tips and knowledge to the students about different branches, how to choose the branch based on their interest, and the skills to develop, what are different roles in the tech industry and what will be their future CSE i.e. whether to choose a job, to become an entrepreneur etc.



Awareness Career Guidance on CSE Branch on 17.02.2024

List of Volunteers:

Awareness on Career Guidance on CSE Branch on 17.02.2024			
S. No	Reg. No	Name	Branch
1	211FA04425	B.SANKEERTHAN REDDY	CSE
2	211FA04448	G.AKHILA	CSE
3	211FA04473	V.KRISHNA LIKHITHA	CSE

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4	211FA04497	A.THRIVENI	CSE
5	211FA04597	Y.SNEHA LATHA	CSE
6	211FA04600	CH.HIMAJA	CSE
7	211FA04502	K.NIHARIKA	CSE
8	211FA04503	T.NAGA SRIDEVI	CSE
9	211FA04272	K.AKSHAY KUMAR	CSE
10	211FA04243	V.MANIKANTA	CSE
11	211FA04505	G.MADHURI	CSE
12	211FA04522	M.VENKATESH	CSE
13	211FA04390	P.YOGESHWAR	CSE
14	211FA04363	M.ROSHINI	CSE
15	211FA04394	CH.MANOJ	CSE
16	211FA04395	A.KOTI REDDY	CSE
17	211FA04396	SK.SAMIYAN	CSE
18	211FA04355	CH.VIJAY	CSE
19	211FA04371	V.MANJUNADH	CSE
20	211FA04100	S.AKANKSHA	CSE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Health Awareness Talk**

Date:17.02.2024

Venue: VFSTR

“The greatest wealth is health”. With the same motto, the team UEAC have organized a health awareness talk in collaboration with Doctors from Vignan’s Health centre in the Sangamam seminar hall on 18 February. The program was initiated with the opening remarks of Dean of Student Affairs Dr. M.S.S. Rukmini, she emphasized on the importance of awareness on first aid, topic of the day.

The event was started by 2:00 PM with the presence of all the core team, vertical leads, vertical members, section coordinators and volunteers. This includes around so many members from different departments. UEAC Programming Officer, Dr P VijayaBabu, who shared valuable insights about health and its importance, further continued it. Dr. Rakesh and Dr. Vaishnava from Vignan Health Centre have educated the students on First Aid, Basic Life support and precautions that are to be taken during any emergency.

Our UEAC team members made this event a great success. The speakers were informative and engaging, and the 30 participating students were enthusiastic and participative. We thank everyone who made the event possible, including the speakers, volunteers, and students. We look forward to hosting similar events in the future



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**University Extension Activity Council (UEAC)
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List of Volunteers:

Health Awareness Session on 17.02.2024			
S. No	Reg. No	Name of the Student	Branch
1	231FC01030	MAGULURI VEERANJANEYULU	MBA
2	231FA04E17	GANDHAM PRASANNA LAKSHMI	CSE
3	211FA04545	DAVULURI VENKAT CHOWDARY	CSE
4	211FA05133	VANKAYALAPATI DIMBINI NAGA LAKSHMI	ECE
5	231FD01047	PITTI DURGA PRASAD	MCA
6	231FA18176	PADYALA BALAGANGADHAR	AIANDML
7	231FA04743	DASAM LOHITHA	CSE
8	221FA01160	GOTTIMUKKALA SITA REDDY	BIOTECH
9	221FA04120	ADARSH KUMAR JHA	CSE
10	211FA18033	SARIKONDA.BHARGAV RAMA RAJU	AIANDML
11	211FA01047	KOTUPALLI PRASASTHI	BIOTECH
12	231FA04A10	EDE PANINI RAGHU PATANJALI	CSE
13	231FA04869	KANDIMALLA JAHNAVI	CSE
14	221FA14112	SHAIK FIEZA AMREEN	BI
15	201FA01040	GOWRA PRATHYUSHA	BIOTECH
16	221FA18051	VEEDULA RISHITHA	AIANDML
17	211FA04522	MANNEPATI VENKATESH	CSE
18	231FA18421	KUPPAM VENKATA LEELA MADHURI	AIANDML
19	231FA04E93	PAGADALA VEDA VARSHINI	CSE
20	211FA07143	VENKATA GIRISH NANDAN JAKKA	IT
21	231FA04710	TALUPULA SUBASHINI	CSE
22	231FA04E92	CHIRALA YESWANTH REDDY	CSE
23	201FA01043	KOGANTI NAGA CHAITANYA	BIOTECH
24	221FM01008	UMMANENI SIVA PRASAD	BSC
25	231FA04094	CHALLAPALLI GOWTHAM	CSE
26	231FA04117	PAINENI AKASH	CSE
27	231FA19025	K TULASI	CSECS
28	231FA18445	PEDDAPUDI SURENDRA REDDY	AIANDML
29	221LA06023	RAMIREDDY RITESH KUMAR	EEE
30	211FA05118	KATA SRI SAI MANOJ VENKATA REDDY	ECE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Cancer**

Date:17.02.2024

Venue: ZPH School SangamJagarlamudi

On 17th February, Awareness on cancer was organized by the NSS-UEAC wing of VFSTR in the nearby Sangamjagarlamudi village.

The Aim of this event is to create awareness on cancer and to provide awareness among the students, reducing the health problems caused by eating junk food and using burning plastic and educating the students about proper diet about food. The target audience for this event were the students in the nearby government school of Vignan's University.

This event began at 11:30AM with a brief introduction about the NSS program and the significance of the event, with a total no of 35 UEAC coordinators and volunteers. The UEAC unit have reached a total no of 200 students of class 8,9 from the nearby government school for this event. After the introduction, the awareness on cancer began. The attendees were provided with a brief about this event by explaining the harmful effects of cancer. This was delivered by the NSS coordinators and the Volunteers.

In Conclusion, the awareness on cancer event organized by Team NSS of ECE department of Vignan University was a successful event that created awareness on cancer and the harmful effects of cancer.



Cancer awareness at ZPH School SangamJagarlamudi on 17.02.2024

List of Volunteers:

Cancer Awareness On 17.02.2024			
S. No	Reg. No	Name	Branch
1	211FA05024	ASA BHARGAVA LAKSHMI NARASIMHA	ECE
2	211FA05029	SHAIK MOHAMMED NAAHIL NAAZIM	ECE
3	211FA05034	PARUCHURU SHAMITHA CHOWDARY	ECE
4	211FA05039	CHINTHA SIVA TEJA	ECE

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NAAC
GRADE
A+NIRF
75th
BANK**University Extension Activity Council (UEAC)
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5	211FA05044	PEDAPATI NAGA VENKATA BALA DURGA SARANYA	ECE
6	211FA05048	RAMAVATH JAGADEESH NAYAK	ECE
7	211FA05054	VAJINEPALLI SAI KRISHNA PAVANI	ECE
8	211FA05062	KOGANTI SRAVYA	ECE
9	211FA05070	ACHANTA JAYA SATYA CHOWDARY	ECE
10	211FA05074	RAPARLA SURYANARAYANA	ECE
11	211FA05081	NARRA MANASA CHOWDARY	ECE
12	211FA05091	TELAGANEEDI YUKTHA	ECE
13	211FA05095	MALLAMPATI SRI HARSHITA	ECE
14	211FA05101	VEMULAPALLI TARUN SAI	ECE
15	211FA05106	MORLA PARDHA	ECE
16	211FA05112	MANDALAPU VINAY KUMAR	ECE
17	211FA05119	CHODE SAI VINAY	ECE
18	211FA05125	VENKATA NAGA KARTHIK REDDY B	ECE
19	211FA05130	GADAMSETTY MOUNIKA	ECE
20	211FA05138	DADI VARDHAN	ECE
21	211FA05142	BUSARAPU AKSHAY KUMAR	ECE
22	211FA05149	GADDAM SUDHA JYOTHIKA	ECE
23	221FA05032	BOJJA ROHITH	ECE
24	221FA05038	SADU RAJESH	ECE
25	221FA05043	KANUMURI AJAY GOPI	ECE
26	221FA05048	PANNEM SHRIYA	ECE
27	221FA05053	VEEREPALLI AKSHITHA CHOWDARY	ECE
28	221FA05060	PERAM TANUJA	ECE
29	221FA05067	UPPALAPATI SAI TEJA	ECE
30	221FA05074	ADURADA VIVEK	ECE
31	221FA05083	SHAIK SAI BASHA	ECE
32	221FA05089	POLLA SYAM KEERTHI	ECE
33	221FA05098	SANA SULTANA	ECE
34	221FA05108	PULICHARLA SRI GANESH VENKATA NAGA CHAND	ECE
35	221FA05113	KOWTHARAPU VENKATA KRISHNA SAI	ECE



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NAAC
GRADE
A+

NIRF
75th
BANK

**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Road Safety Awareness Drive**

Date: 17.02.2024

Venue: ZPHS SangamJagarlamudi,

On the 17th of February 2024, Awareness on Road safety measures was organized by the NSS-UEAC wing of VFSTR in the nearby SangamJagarlamudi village.

The Aim of this event was to create awareness on road safety measures and to provide awareness among the students, reducing the accidents caused using smartphones, high speed, and not following the traffic rules while driving. The target audience for this event were the students in the nearby government school of Vignan's University.

This event began at 10:30AM with a brief introduction about the NSS program and the significance of the event, with a total no of 35 NSS coordinators and volunteers. The NSS unit have reached a total no of 200 students of class 8,9 from the nearby government school for this event.

After the introduction, the awareness on road safety measures begin. The attendees were provided with a brief about this event by explaining the effects that causes after accidents and the loss we need to bear. This was delivered by the NSS coordinators and the Volunteers. In Conclusion, the awareness on road safety measures event organized by Team NSS of ECE department of Vignan University was a successful event that created awareness on road safety measures and the harmful effects caused due to not following the traffic rules.



Road Safety Awareness Drive on 17.02.2024

List of Volunteers:

Road Safety Awareness Drive on 17.02.2024			
S.No	Reg.No	Name	Branch
1	211FA05024	ASA BHARGAVA LAKSHMI NARASIMHA	ECE
2	211FA05029	SHAIK MOHAMMED NAAHIL NAAZIM	ECE
3	211FA05034	PARUCHURU SHAMITHA CHOWDARY	ECE

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4	211FA05039	CHINTHA SIVA TEJA	ECE
5	211FA05044	PEDAPATI NAGA VENKATA BALA DURGA SARANYA	ECE
6	211FA05048	RAMAVATH JAGADEESH NAYAK	ECE
7	211FA05054	VAJINEPALLI SAI KRISHNA PAVANI	ECE
8	211FA05062	KOGANTI SRAVYA	ECE
9	211FA05070	ACHANTA JAYA SATYA CHOWDARY	ECE
10	211FA05074	RAPARLA SURYANARAYANA	ECE
11	211FA05081	NARRA MANASA CHOWDARY	ECE
12	211FA05091	TELAGANEEDI YUKTHA	ECE
13	211FA05095	MALLAMPATI SRI HARSHITA	ECE
14	211FA05101	VEMULAPALLI TARUN SAI	ECE
15	211FA05106	MORLA PARDHA	ECE
16	211FA05112	MANDALAPU VINAY KUMAR	ECE
17	211FA05119	CHODE SAI VINAY	ECE
18	211FA05125	VENKATA NAGA KARTHIK REDDY B	ECE
19	211FA05130	GADAMSETTY MOUNIKA	ECE
20	211FA05138	DADI VARDHAN	ECE
21	211FA05142	BUSARAPU AKSHAY KUMAR	ECE
22	211FA05149	GADDAM SUDHA JYOTHIKA	ECE
23	221FA05032	BOJJA ROHITH	ECE
24	221FA05038	SADU RAJESH	ECE
25	221FA05043	KANUMURI AJAY GOPI	ECE
26	221FA05048	PANNEM SHRIYA	ECE
27	221FA05053	VEEREPALLI AKSHITHA CHOWDARY	ECE
28	221FA05060	PERAM TANUJA	ECE
29	221FA05067	UPPALAPATI SAI TEJA	ECE
30	221FA05074	ADURADA VIVEK	ECE
31	221FA05083	SHAIK SAI BASHA	ECE
32	221FA05089	POLLA SYAM KEERTHI	ECE
33	221FA05098	SANA SULTANA	ECE
34	221FA05108	PULICHARLA SRI GANESH VENKATA NAGA CHAND	ECE
35	221FA05113	KOWTHARAPU VENKATA KRISHNA SAI	ECE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Organic Farming**

Date:20.02.2024

Village: Narakoduru

We the team UEAC has conducted the event of Awareness on Organic Farming in Narakoduru village on 20-February-2024. The main aim is to educate people on the importance of Organic farming and the potential ways of achieving it.

Our NSS volunteers have been dispersed in groups, educated villagers through door-door campaign. The awareness mainly focuses on the benefits and methods of organic farming. Through interactive discussions, highlighting how organic farming preserves soil health, promotes biodiversity, and produces healthier food without harmful chemicals. The event also emphasizes the importance of composting, crop rotation, and natural pest control methods.

Our UEAC team, including vertical members, chief organizers, and volunteers, gathered at the college by 1:30 PM. The event began at 2:00 PM with the arrival of the 50 attendees and concluded at 4:00 PM.



Awareness on Organic Farming on 20.02.2024

List of Volunteers:

Awareness on Organic Farming on 20.02.2024			
S. No	Reg. No	Name Of The Student	Branch
1	221LA08018	L RAGHUVVEER KANTH	BT
2	211FA08030	T MURALI GOPALA KRISHNA	BT
3	211FA08029	ANIRUDH MANNE	BT
4	221LA08008	MD WASIM ALAM	BT
5	211FA21008	M WILLIAMS KUMAR	BT
6	221FA21001	K CHINMAYE SAI	BT
7	221FA21009	CH JYOTHIKA	BT

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8	231LA08008	SAI CHARAN	BT
9	211FA08007	B KALYAN RAM	BT
10	221LA08027	P PRAVEEN	BT
11	221LA08020	ABHIJEETH SONI	BT
12	231LA08014	P AMEERJAN	BT
13	231LA08006	BALAJI	BT
14	231FA08005	R PRASANNA KUMAR	BT
15	221LA08018	L RAGHUVVEER KANTH	BT
16	211FA08030	T MURALI GOPALA KRISHNA	BT
17	211FA08029	ANIRUDH MANNE	BT
18	221LA08008	MD WASIM ALAM	BT
19	211FA21008	M WILLIAMS KUMAR	BT
20	221FA21001	K CHINMAYE SAI	BT
21	221FA21009	CH JYOTHIKA	BT
22	231LA08008	SAI CHARAN	BT
23	211FA08007	B KALYAN RAM	BT
24	221LA08027	P PRAVEEN	BT
25	221LA08020	ABHIJEETH SONI	BT
26	231LA08014	P AMEERJAN	BT
27	231LA08006	BALAJI	BT
28	231FA08005	R PRASANNA KUMAR	BT
29	221LA08018	L RAGHUVVEER KANTH	BT
30	211FA08030	T MURALI GOPALA KRISHNA	BT
31	211FA08029	ANIRUDH MANNE	BT
32	221LA08008	MD WASIM ALAM	BT
33	211FA21008	M WILLIAMS KUMAR	BT
34	221FA21001	K CHINMAYE SAI	BT
35	221FA21009	CH JYOTHIKA	BT
36	231LA08008	SAI CHARAN	BT
37	211FA08007	B KALYAN RAM	BT
38	221LA08027	P PRAVEEN	BT
39	221LA08020	ABHIJEETH SONI	BT
40	231LA08014	P AMEERJAN	BT
41	231LA08006	BALAJI	BT
42	231FA08005	R PRASANNA KUMAR	BT
43	221LA08018	L RAGHUVVEER KANTH	BT
44	211FA08030	T MURALI GOPALA KRISHNA	BT
45	211FA08029	ANIRUDH MANNE	BT



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46	221LA08008	MD WASIM ALAM	BT
47	211FA21008	M WILLIAMS KUMAR	BT
48	221FA21001	K CHINMAYE SAI	BT
49	221FA21009	CH JYOTHIKA	BT
50	231LA08008	SAI CHARAN	BT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Online Scams**

Date:20.02.2024

Venue: Narakoduru

On the 20th of February 2024, Awareness on Online Scams was organized by the UEAC wing - Bio technology of VFSTR in the nearby Narakoduru village.

This activity aims to provide a comprehensive overview on the awareness on Online scams. As Internet access becomes more widespread, rural areas are becoming more vulnerable to online frauds and scams. The objective of this awareness is to provide local people with the knowledge and skills to detect and prevent falling victim to fraud. Understanding the level of awareness and knowledge about this issue is essential for the people in the villages to overcome this issue effectively. The event was held in Narakoduru village at 2:00 PM. A total of 50 members participated in the event. That includes section coordinators and volunteers and respective leads and organizers of the biotech department. The event solely focused on educating rural people on the increasing concern of online scams and frauds in today's digitally driven world.

The Program commenced to assemble of every one of NSS (Volunteers and Members along with organizers) at 2:00 PM. The division of groups and contribution of their efforts to make people understand about the online scams had taken place simultaneously. By 4:00 PM, everyone reached the college and dispersed to their respective classes with a thank-you note.



Awareness on Online scams on 20.02.2024

List of Volunteers:

Awareness on Online scams on 20.02.2024			
S. No	Reg. No	Name	Branch
1	221LA08018	L RAGHUVVEER KANTH	BT
2	211FA08030	T MURALI GOPALA KRISHNA	BT
3	211FA08029	ANIRUDH MANNE	BT
4	221LA08008	MD WASIM ALAM	BT
5	211FA21008	M WILLIAMS KUMAR	BT
6	221FA21001	K CHINMAYE SAI	BT

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**University Extension Activity Council (UEAC)
Annual Report – 2023-24**

7	221FA21009	CH JYOTHIKA	BT
8	231LA08008	SAI CHARAN	BT
9	211FA08007	B KALYAN RAM	BT
10	221LA08027	P PRAVEEN	BT
11	221LA08020	ABHIJEETH SONI	BT
12	231LA08014	P AMEERJAN	BT
13	231LA08006	BALAJI	BT
14	231FA08005	R PRASANNA KUMAR	BT
15	221LA08018	L RAGHUVVEER KANTH	BT
16	211FA08030	T MURALI GOPALA KRISHNA	BT
17	211FA08029	ANIRUDH MANNE	BT
18	221LA08008	MD WASIM ALAM	BT
19	211FA21008	M WILLIAMS KUMAR	BT
20	221FA21001	K CHINMAYE SAI	BT
21	221FA21009	CH JYOTHIKA	BT
22	231LA08008	SAI CHARAN	BT
23	211FA08007	B KALYAN RAM	BT
24	221LA08027	P PRAVEEN	BT
25	221LA08020	ABHIJEETH SONI	BT
26	231LA08014	P AMEERJAN	BT
27	231LA08006	BALAJI	BT
28	231FA08005	R PRASANNA KUMAR	BT
29	221LA08018	L RAGHUVVEER KANTH	BT
30	211FA08030	T MURALI GOPALA KRISHNA	BT
31	211FA08029	ANIRUDH MANNE	BT
32	221LA08008	MD WASIM ALAM	BT
33	211FA21008	M WILLIAMS KUMAR	BT
34	221FA21001	K CHINMAYE SAI	BT
35	221FA21009	CH JYOTHIKA	BT
36	231LA08008	SAI CHARAN	BT
37	211FA08007	B KALYAN RAM	BT
38	221LA08027	P PRAVEEN	BT
39	221LA08020	ABHIJEETH SONI	BT
40	231LA08014	P AMEERJAN	BT
41	231LA08006	BALAJI	BT
42	231FA08005	R PRASANNA KUMAR	BT
43	221LA08018	L RAGHUVVEER KANTH	BT

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44	211FA08030	T MURALI GOPALA KRISHNA	BT
45	211FA08029	ANIRUDH MANNE	BT
46	221LA08008	MD WASIM ALAM	BT
47	211FA21008	M WILLIAMS KUMAR	BT
48	221FA21001	K CHINMAYE SAI	BT
49	221FA21009	CH JYOTHIKA	BT
50	231LA08008	SAI CHARAN	BT

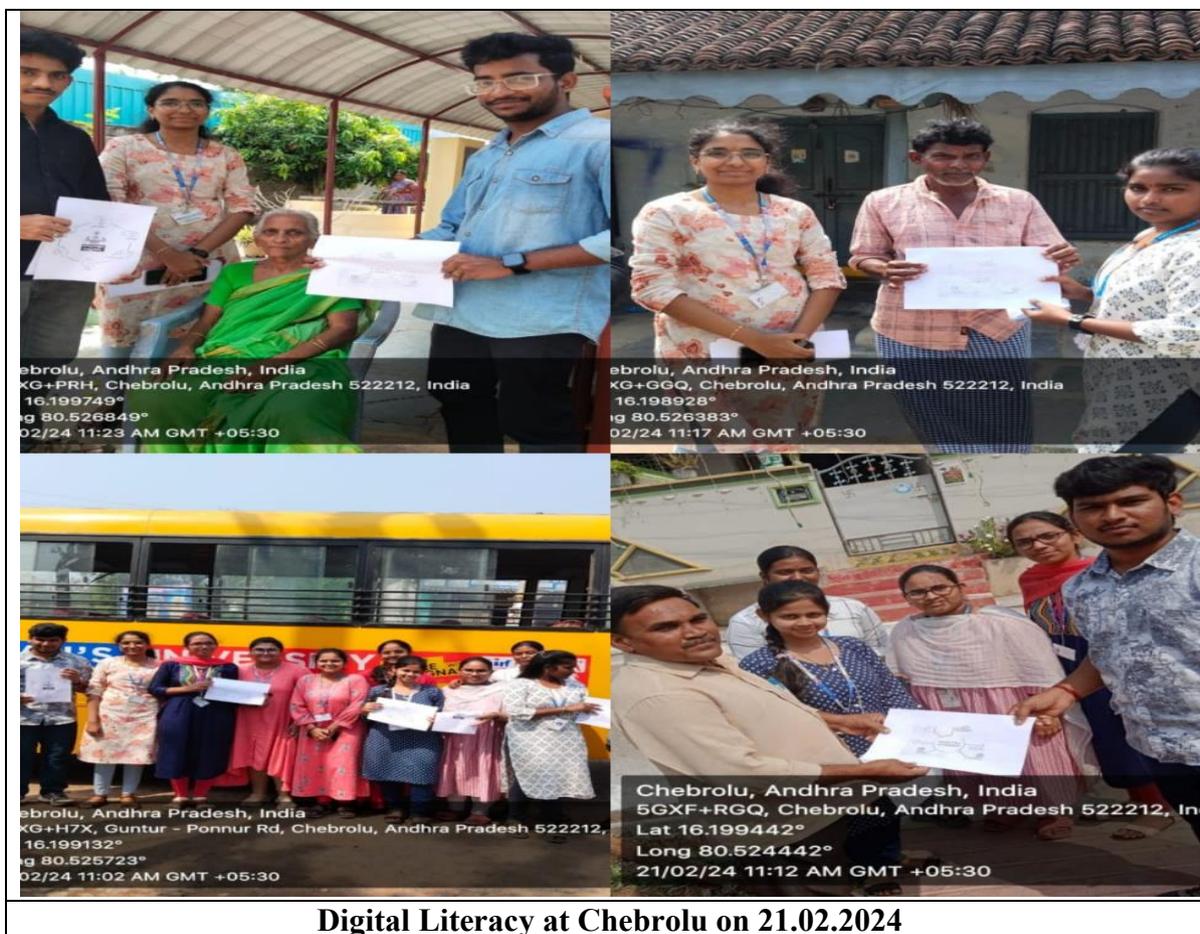


**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Digital Literacy**

Date: 21.02.2024

Venue: Chebrolu village

On the 21st of February 2024, Awareness on Digital Literacy was organized by the NSS wing – Bio Medical of VFSTR in the nearby Chebrolu village. The main aim of this event is to educate people about the importance of Digital Literacy and help them to achieve it. Everything nowadays is digital but most of the people in rural areas don't know how to handle a digital gadget properly. The objective of this event was to educate the people with basic knowledge like how to handle a digital gadget and to use them to access information and communicate with others so that they would become digitally literate. All the NSS volunteers along with few Chief organizers and Chief coordinators were gathered at 09:45. The event was held in Chebrolu village at 10:20. A total of 35 members participated in this event. This includes the volunteers, section coordinators along with respective leads and organizers of the biomedical department. The program commenced at 9:45 AM with the assembly of 35 participants, including NSS volunteers, members, and organizers. Groups were divided, and team leaders briefed the volunteers on the discussion points. By 1:00 PM, everyone had returned to the college.



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**University Extension Activity Council (UEAC)
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List of Volunteers:

Awareness on Digital Literacy at Chebrolu on 21.02.2024			
S. No	Regd. No	Name	Branch
1	221FA01031	K. RAVEENA	BM
2	221FA01014	T. VASUNDHARA	BM
3	221FA01029	M. ASHRITHA	BM
4	221FA01004	AMRESH KUMAR	BM
5	221FA01053	TULASI VARANASI	BM
6	221FA01005	PRINCE KUMAR	BM
7	221FA01052	N. MEGHANA	BM
8	221FA01020	SUNNY KUMAR	BM
9	221FA01027	NITISH KUMAR	BM
10	221FA01001	SAKLEN RAZA	BM
11	221FA01010	M. PRAVALLIKA	BM
12	221FA01063	SUCHITHA SHARON	BM
13	221FA01104	J. TRIVENI	BM
14	221FA01112	B.V. HEMAHARSHINI	BM
15	221FA01183	G.V.N. SANTHOSHI	BM
16	221FA01167	D. MADHAVI	BM
17	221FA01163	SK. HARSHAD	BM
18	221FA01136	A. CHANDRIKA	BM
19	221FA01112	HARSHINI	BM
20	221FA01146	HUSSAIN	BM
21	221FA01148	LALITHA	BM
22	221FA01164	SD. NAZIYA	BM
23	221FA01191	DIKSHA KUMARI	BM
24	221FA01206	MS. SAHIL	BM
25	221FA01152	MOKSHITHA	BM
26	221FA14047	S. GEETHIKA	BM
27	221FA14028	SK. HABIB	BM
28	221FA14049	R. YASAWI	BM
29	221FA14007	MAMATHA	BM
30	221FA14015	B. ALEKHYA	BM
31	221FA14020	R. HARSHITHA	BM
32	221FA14033	A. SOUMYA	BM
33	221FA14055	V. VAISHNAVI	BM
34	221FA14004	S. BHARGHAVI	BM
35	221FA14056	K. SATHWIKA	BM



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness On Diabetes**

Date: 21.02.2024

Venue: Chebrolu village

The UEAC (University Extension Activities Council) volunteers of VFSTR conducted Awareness on Diabetes at Chebrolu.

This event “Awareness on diabetes” was conducted in the indication of helping to get awareness on diabetes by the VFSTR University on 21 FEB 2024 by the team UEAC.

The most common disease that many people are suffering from irrespective of age is diabetes. It became a common disease that occurs when the immune system mistakenly attacks and destroys the insulin-producing cells in the pancreas. The program has been conducted by the Dept. of Bio-Medical at Chebrolu and the students who were involved in the program trained the people who were suffering from diabetes and lectured them on how to cure diabetes. They created a flow chart of the stages of diabetes and how to cure diabetes by helping the chart students clearly explain the people in Chebrolu.

The Program commenced with on assembly of 1st and 2nd-year biomedical students at 9:30 AM and started to cheerful the contribution and participation of every student to make the “Awareness on diabetes” program successful. By the time 1:30 PM all students reached the university was great full further proceeded by clicking few photos finally everyone dispersed with a thank you note.



Awareness On Diabetes at Chebrolu village on 21.02.2024

List of Volunteers:

Awareness Diabetes at Chebrolu village on 21.02.2024			
S. No	Regd. No	Name	Branch
1	221FA01031	K. RAVEENA	BM
2	221FA01014	T. VASUNDHARA	BM
3	221FA01029	M. ASHRITHA	BM

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4	221FA01004	AMRESH KUMAR	BM
5	221FA01053	TULASI VARANASI	BM
6	221FA01005	PRINCE KUMAR	BM
7	221FA01052	N. MEGHANA	BM
8	221FA01020	SUNNY KUMAR	BM
9	221FA01027	NITISH KUMAR	BM
10	221FA01001	SAKLEN RAZA	BM
11	221FA01010	M. PRAVALLIKA	BM
12	221FA01063	SUCHITHA SHARON	BM
13	221FA01104	J. TRIVENI	BM
14	221FA01112	B.V. HEMAHARSHINI	BM
15	221FA01183	G.V.N. SANTHOSHI	BM
16	221FA01167	D. MADHAVI	BM
17	221FA01163	SK. HARSHAD	BM
18	221FA01136	A. CHANDRIKA	BM
19	221FA01112	HARSHINI	BM
20	221FA01146	HUSSAIN	BM
21	221FA01148	LALITHA	BM
22	221FA01164	SD. NAZIYA	BM
23	221FA01191	DIKSHA KUMARI	BM
24	221FA01206	MS. SAHIL	BM
25	221FA01152	MOKSHITHA	BM
26	221FA14047	S. GEETHIKA	BM
27	221FA14028	SK. HABIB	BM
28	221FA14049	R. YASAWI	BM
29	221FA14007	MAMATHA	BM
30	221FA14015	B. ALEKHYA	BM
31	221FA14020	R. HARSHITHA	BM
32	221FA14033	A. SOUMYA	BM
33	221FA14055	V. VAISHNAVI	BM
34	221FA14004	S. BHARGHAVI	BM
35	221FA14056	K. SATHWIKA	BM



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Water Conservation**

Date: 22.02.2024

Venue: Vejendla

We the team UEAC have conducted an event to bring awareness on Water Conservation in Vejendla village. The main aim of this event is to educate people about the importance of water and to conserve water by different using methods.

Our UEAC volunteers team from the civil department organized this event. This event motivates the people to conserve water and helps them to understand the importance of preserving Water. This event makes the people understand about managing freshwater, reducing the wastage and protecting the water to avoid scarcity. They came to know that the water problems can be solved by implementing the rainwater-harvesting method. Our UEAC volunteers along with a few Chief organizers and Chief coordinators went to the village and explained to the people about the importance of water conservation.

The program was commenced on assemble of NSS volunteers and members along with the organizers at 1:30. They were divided into groups and they started in the college by 2:00 PM. They reached the village by 2:20 PM. Each group addressed the people and they returned to college by 4:00 PM.



Awareness on Water Conservation at Vejendla village on 22.02.2024

List of Volunteers:

Awareness on Water Conservation on 22.02.2024			
S. No	Reg. No	Name	Branch
1	201FA08001	GARIKAPATI RAKESH	MECH
2	201FA08004	POLISSETTY MOHAN SAI SANKAR	MECH
3	201FA08009	VIKASH KUMAR	MECH
4	211FA08002	VEERI MANIKANTA GOWD	MECH
5	211FA08007	BATTULA KALYAN RAM	MECH
6	211FA08012	KATTA CHARAN	MECH

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Annual Report – 2023-24**

7	211FA08016	SHAIK ULFATH	MECH
8	211FA08019	SHAIK MOULALI	MECH
9	211FA08024	JONNAKUTI BHARATH TEJA	MECH
10	211FA08027	EVURU DOLA SAI CHAITANYA	MECH
11	211FA08030	TAMMISSETTI MURALI GOPALA KRISHNA	MECH
12	211fa08032	KATLA NITIN ASRITH	MECH
13	211fa08031	GAJULA VENKAT	MECH
14	211LA08003	PIKKALKAR KRISHNA	MECH
15	211LA08005	GARIKAPATI SAI SAKETH BALU	MECH
16	211LA08008	KONDA HARSHANTH	MECH
17	211LA08011	TUNUGUNTLA VENKATA DEVENDRA GUPTHA	MECH
18	211LA08013	MANDA VENKATA SIVA SAI	MECH
19	211LA08017	SHAIK SHAKEEL	MECH
20	211LA08021	FAZRUL REHMAN	MECH



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NAAC
GRADE
A+

NIRF
75th
BANK

**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Energy Conservation**

Date: 22.02.2024

Venue: Vejendla village

We the team UEAC has conducted an event to bring awareness on Energy Conservation in Vejendla village. The main aim of this event is to educate people about the importance of energy and ways to conserve energy.

Our volunteers of team UEAC from civil department organized the event. This event motivates people to conserve energy and helps them to understand the importance of conserving energy. This event makes people manage energy consumption, reduce wasteful energy by using fewer energy services. The problems of villagers like electricity problems were discussed. They gave them an alternative idea of using less energy-efficient appliances and renewable energy sources such as solar panels and wind turbines, which generate our own clean energy. Our UEAC volunteers along with a few Chief organizers and Chief coordinators went to the village and explained to the people about the importance of energy conservation and they were given an idea of using renewable energy sources.

The program commenced on assemble of UEAC volunteers and members along with the organizers at 1:30. They were divided into groups and they started in the college by 2:00 PM. They reached the village by 2:20 PM. Each group addressed the people and they returned to college by 4:00PM.



Awareness on Energy Conservation at Vejendla village on 22.02.2024

List of Volunteers:

Awareness on Energy Conservation on 22.02.2023			
S. No	Reg. No	Name	Branch
1	201FA08001	GARIKAPATI RAKESH	MECH
2	201FA08004	POLISSETTY MOHAN SAI SANKAR	MECH

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**University Extension Activity Council (UEAC)
Annual Report – 2023-24**

3	201FA08009	VIKASH KUMAR	MECH
4	211FA08002	VEERI MANIKANTA GOWD	MECH
5	211FA08007	BATTULA KALYAN RAM	MECH
6	211FA08012	KATTA CHARAN	MECH
7	211FA08016	SHAIK ULFATH	MECH
8	211FA08019	SHAIK MOULALI	MECH
9	211FA08024	JONNAKUTI BHARATH TEJA	MECH
10	211FA08027	EVURU DOLA SAI CHAITANYA	MECH
11	211FA08030	TAMMISETTI MURALI GOPALA KRISHNA	MECH
12	211fa08032	KATLA NITIN ASRITH	MECH
13	211fa08031	GAJULA VENKAT	MECH
14	211LA08003	PIKKALKAR KRISHNA	MECH
15	211LA08005	GARIKAPATI SAI SAKETH BALU	MECH
16	211LA08008	KONDA HARSHANTH	MECH
17	211LA08011	TUNUGUNTLA VENKATA DEVENDRA GUPTHA	MECH
18	211LA08013	MANDA VENKATA SIVA SAI	MECH
19	211LA08017	SHAIK SHAKEEL	MECH
20	211LA08021	FAZRUL REHMAN	MECH



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NAAC
GRADE
A+

NIRF
BANK
75th

University Extension Activity Council (UEAC) Annual Report – 2023-24 Awareness On Bird flu

Date: 24.02.2024

Venue: Narakoduru village

We the team UEAC have conducted an event to bring awareness on Bird Flu in Narakoduru village. The main aim of this event is to educate people about bird flu and what is the effect of bird flu on humans.

Our team UEAC from the FT department organized this event. This event is about a viral infection that primarily affects birds. People need to understand that there are various strains of bird flu, some of which can infect humans. This event makes the people to understand the transmission of the disease from birds to humans, and about the symptoms in humans can range from mild to severe and may include fever, cough, sore throat and respiratory difficulties. They came to know about prevention and global concerns by avoiding eating chickens and taking safety measures from children to adults. Our UEAC volunteers along with a few Chief organizers and Chief coordinators went to the village and explained to people about the consequences of Bird Flu.

The program commenced on assemble of NSS volunteers and members along with the organizers at 1:30 PM. They were divided into groups and they started in the college by 2:00 PM. They reached the village by 2:30 PM. Each group addressed the people and they returned to college by 4:00 PM.



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NAAC
GRADE
A+NIRF
75th
BANK

**University Extension Activity Council (UEAC)
Annual Report – 2023-24**

List of Volunteers:

Awareness on Bird flu on 24.02.2024			
S. No	Reg. No	Name	Branch
1	211FA04425	D.SNEHA NAVYA SRI	FT
2	211FA04448	G. AKHILA	FT
3	211FA04473	V.KRISHNA LIKHITHA	FT
4	211FA04497	A.THRIVENI	FT
5	211FA04597	Y.SNEHA LATHA	FT
6	211FA04600	CH.HIMAJA	FT
7	211FA04502	K.NIHARIKA	FT
8	211FA04503	T.NAGA SRIDEVI	FT
9	211FA04272	K.AKSHAY KUMAR	FT
10	211FA04243	V.MANIKANTA	FT
11	211FA04505	G.MADHURI	FT
12	211FA04522	M.VENKATESH	FT
13	211FA04390	P.YOGESHWAR	FT
14	211FA04363	M.ROSHINI	FT
15	211FA04394	CH.MANOJ	FT
16	211FA04395	A.KOTI REDDY	FT
17	211FA04396	SK.SAMIYAN	FT
18	211FA04355	CH.VIJAY	FT
19	211FA04371	V.MANJUNADH	FT
20	211FA04100	S.AKANKSHA	FT
21	211FA04508	B.SANKEERTHAN REDDY	FT
22	211FA04425	D.SNEHA NAVYA SRI	FT
23	211FA04448	G.AKHILA	FT
24	211FA04473	V.KRISHNA LIKHITHA	FT
25	211FA04497	A. THRIVENI	FT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Importance of millets**

Date: 24.02.2024
Village: Narakoduru

On the 24th of Feb 2024, Awareness on the Importance of Millets was organized by the NSS wing food technology of VFSTR in the nearby Narakoduru village.

This event aimed to create awareness on the Importance of millet and to provide awareness among the students, reducing the health problems caused by Low immunity and educating the People on the proper precautions. The target audience for this event was the in the nearby village of Vignan's University.

This event began at 10:00 AM with a brief introduction about the NSS program and the significance of the event, with a total no of 20 NSS coordinators and volunteers. The NSS unit has reached a total of 300 people from the nearby village for this event.

After the introduction, the awareness on the Importance of Millets. The attendees were provided with a brief about this event by explaining the harmful effects of various diseases. This was delivered by the NSS coordinators and the Volunteers.



List of Volunteers:

Awareness on Importance of Millets on 24.02.24			
S. No	Reg. No	Name	Branch
1	211FA04425	D.SNEHA NAVYA SRI	FT
2	211FA04448	G. AKHILA	FT
3	211FA04473	V.KRISHNA LIKHITHA	FT
4	211FA04497	A.THRIVENI	FT

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**University Extension Activity Council (UEAC)
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5	211FA04597	Y.SNEHA LATHA	FT
6	211FA04600	CH.HIMAJA	FT
7	211FA04502	K.NIHARIKA	FT
8	211FA04503	T.NAGA SRIDEVI	FT
9	211FA04272	K.AKSHAY KUMAR	FT
10	211FA04243	V.MANIKANTA	FT
11	211FA04505	G.MADHURI	FT
12	211FA04522	M.VENKATESH	FT
13	211FA04390	P.YOGESHWAR	FT
14	211FA04363	M.ROSHINI	FT
15	211FA04394	CH.MANOJ	FT
16	211FA04395	A.KOTI REDDY	FT
17	211FA04396	SK.SAMIYAN	FT
18	211FA04355	CH.VIJAY	FT
19	211FA04371	V.MANJUNADH	FT
20	211FA04100	S.AKANKSHA	FT
21	211FA04508	B.SANKEERTHAN REDDY	FT
22	211FA04425	D.SNEHA NAVYA SRI	FT
23	211FA04448	G.AKHILA	FT
24	211FA04473	V.KRISHNA LIKHITHA	FT
25	211FA04497	A. THRIVENI	FT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness On Bird flu**

Date: 24.02.2024

Venue: Chebrolu village

We the team UEAC have conducted an event to bring awareness on Bird Flu in Chebrolu town. The main aim of this event is to educate people about bird flu and what is the effect of bird flu on humans.

Our team of UEAC members from the CSE department organized this event. This event is about a viral infection that primarily affects birds. People need to understand that there are various strains of bird flu, some of which can infect humans. This event makes people understand the transmission of the disease from birds to humans, and symptoms in humans can range from mild to severe and may include fever, cough, sore throat and respiratory difficulties. They came to know about prevention and global concerns by avoiding eating chickens and taking safety measures from children to adults. Our NSS volunteers along with few Chief organizers and Chief coordinators went to the village and explained to people about the consequences of Bird Flu.

The program was commenced assemble of NSS volunteers and members along with the organizers at 1:30 PM. They were divided into groups and they started in the college by 2:00 PM. They reached the village by 2:30 PM. Each group addressed the people and they returned to college by 4:00 PM.



Awareness on Bird flu on 24.02.2024

List of Volunteers:

Awareness on Bird flu on 24.02.2024			
S. No	Reg. No	Name	Branch
1	211FA04425	B.SANKEERTHAN REDDY	CSE
2	211FA04448	G.AKHILA	CSE
3	211FA04473	V.KRISHNA LIKHITHA	CSE

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**University Extension Activity Council (UEAC)
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4	211FA04497	A.THRIVENI	CSE
5	211FA04597	Y.SNEHA LATHA	CSE
6	211FA04600	CH.HIMAJA	CSE
7	211FA04502	K.NIHARIKA	CSE
8	211FA04503	T.NAGA SRIDEVI	CSE
9	211FA04272	K.AKSHAY KUMAR	CSE
10	211FA04243	V.MANIKANTA	CSE
11	211FA04505	G.MADHURI	CSE
12	211FA04522	M.VENKATESH	CSE
13	211FA04390	P.YOGESHWAR	CSE
14	211FA04363	M.ROSHINI	CSE
15	211FA04394	CH.MANOJ	CSE
16	211FA04395	A.KOTI REDDY	CSE
17	211FA04396	SK.SAMIYAN	CSE
18	211FA04355	CH.VIJAY	CSE
19	211FA04371	V.MANJUNADH	CSE
20	211FA04100	S.AKANKSHA	CSE
21	211FA04508	K.MANIKANTA	CSE
22	211FA04537	CHITNENI SINDHU	CSE
23	211FA04540	DULLA VENKATA SIVA NAGA CHARAN TEJA YADAV	CSE
24	211FA04543	GALI SAI VIJAY	CSE
25	211FA04549	VANGIPURAPU VISWANATH	CSE
26	211FA04552	CHAGANTI SIRI VIGNA REDDY	CSE
27	211FA04557	MANURU L S S MANOHARA CHANDRACOS	CSE
28	211FA04544	VEMPATI VEERA MANIKANTA	CSE
29	211FA04560	SUVARNA LAKSHMI ARUMALLA	CSE
30	211FA04563	APPIDI SAI KIRAN REDDY	CSE
31	211FA04568	SANTOSH KUMAR	CSE
32	211FA04571	ABBURI SRI LAKSHMI	CSE
33	211FA04576	JAHNAVI DABBAKUTI	CSE
34	211FA04582	VARANASI N V SIVA LAKSHMI NARAYANA	CSE
35	211FA04586	YAKKANTI SAI VARSHITHA	CSE
36	211FA04598	DUDLA DASARADHA RAMI REDDY	CSE
37	211FA04607	KONDA MANIKANTA	CSE
38	211FA04612	CHERUKURI SOWNDARYAVATHI	CSE
39	211FA04617	BIJJAM VENKATA PAVAN KUMAR REDDY	CSE
40	211FA04628	RAYI HARIKA	CSE
41	211FA04634	MOGALLURI VENKATA SIDDARDHA	CSE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
SWATCH VIGNAN**

Date: 24.02.2024

Venue: VFSTR

We the team UEAC has conducted “Swatch Vignan” event on 24-FEB-2024 to inculcate the habitat of cleanness and hygiene maintenance. The main motto of the event is to bring awareness among the students about cleanness and its importance.

Every week it is organised in some part of the university but this time, the event has been conducted in all blocks of the university. The event started at 2:00 PM with the presence of all the core team, vertical leads, vertical members, section coordinators, and volunteers. The objective of the cleanliness drive is to get rid of all the non-biodegradable waste like plastic covers, plastic straws, rubbers, toxic substances, fibbers, and thermocouples and clean university premises.

Our UEAC team members, including the core team, vertical leads, vertical members, section coordinators, and volunteers, gathered at the college. The 256 participants divided into groups based on their disciplines and contributed to cleaning the university. The event lasted from 2:00 PM to 4:00 PM.



Swatch Vignan at VFSTR on 24.02.2024

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List of Volunteers:

SWACHH VIGNAN on 24.02.2024			
S. No	Reg. No	Name of the Student	Branch
1	231FA04521	BOLISETTY V N S K MAHALAKSHMI	CSE
2	211LA05007	NAGUMOTU ANJANA SRI	ECE
3	231FA18200	KOTA VARUN	AIANDML
4	211FA05301	BHOGIREDDY LAKSHMI MANI TEJA	ECE
5	231FA04B65	ALLAMSETTY SHANUMUKH SAI SRI BALAJI	CSE
6	231FK01087	DHANU SOWRAV KUMAR	BBA
7	231FM01007	DOKKU JAHNAVI	BSC
8	211LA08008	KONDA HARSHANTH	MECH
9	221FA04118	SHIVAM KUMAR	CSE
10	221FA04537	MUPPALLA LASYA	CSE
11	231FC01157	GATTU MESSY ROYAL	MBA
12	211FA04520	DHANUKOTI UMA MAHESH	CSE
13	231FA04034	GOTTAM MASTHAN RAO	CSE
14	231FA23112	GOPISETTI HEMASAIDEEPHI	DS
15	221FA01087	SURE LAKSHMI SAI SREE	BIOTECH
16	231FK01129	MEESALA REVANTH SAI	BBA
17	221FA14065	RAYIDI SRI SAI CHINMAI	BI
18	231FA04B87	KURRA BHANU SRI	CSE
19	201FA04170	TIRUMALASETTY PAVAN KUMAR	CSE
20	231FA19063	SHAIK SAFIYA MUSKAAN	CSECS
21	231FA04001	SANKEPELLI SAMEERA	CSE
22	211FA07020	VENKATA SAI RAHUL VEMULURI	IT
23	221FA04352	BOLLIMUNTHA PREETHI	CSE
24	221FC01096	SYED KARISHMA KAREEM	MBA
25	231FA04106	KANAMARLAPUDI SURYA CHANDRA GUPTHA	CSE
26	201FA04074	REDDYVARI UDAY KUMAR REDDY	CSE
27	211LA05044	VEMULAPALLI JEEVANA	ECE
28	231FA04159	TUPAKULA SRIKANTH	CSE
29	211FA01062	BURRI GANESH	BIOTECH
30	231FA04620	NAVULURI VEDA SREE	CSE
31	231FA04898	SHAIK SAMEER	CSE
32	231FA21010	GANAPA ADILAKSHMI	RA
33	201FK01051	GOLLA VENU	BBA
34	231FA04C10	BOBBELLA GANESH	CSE

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35	231FA04064	ARAVAPALLI VENKATA SATHWIK KUMAR	CSE
36	231FA05257	VANUKURI LAKSHMI SIVA PARVATHI	ECE
37	201FA04273	BHAVIRISETTI VARA LAKSHMI	CSE
38	211FA19031	DEVARPALLI TEJASWI	CSECS
39	211FA04134	RAHUL CHANDRA	CSE
40	231FA05238	KANAMARLAPUDI SRIDHAR ANANTH KUMAR	ECE
41	211FA08006	BODDU HARSHA VARDHAN	MECH
42	201FA01063	DUVVURU PRAGNA REDDY	BIOTECH
43	231FA04993	TADIKAMALLA VASAVI LAKSHMI SREE	CSE
44	201FA04334	KONDRAGUNTA NEHA	CSE
45	201FA15080	GOPALAPPAGARI UDAY	FT
46	231FA01020	SHAIK RESHMA	BIOTECH
47	231FA04B50	KOLLURU VEDA SRI SURYA SASANK	CSE
48	231FA04838	KOYA NAVYA SRI	CSE
49	221FA04671	TUMMALA AKASH	CSE
50	201FA01092	PERUMALLA PRADEEPTHI NAVYA	BIOTECH
51	231FD01013	CHITTE NAGA SAI LAKSHMI	MCA
52	231FA05318	SIBANDA LIBERTY F	ECE
53	231FA18398	GUNA GOUTHAMI	AIANDML
54	211FA04400	MULE RAMANJANEYULU	CSE
55	231FA04801	DASARI HARSHITH	CSE
56	231FA23021	KATURI BHARGAVI	DS
57	231FA04775	YARAGALLA SUNANDA	CSE
58	231FA07113	APPIDI SAI KUMAR REDDY	IT
59	231FA01044	ELETI BENSON	BIOTECH
60	221FA04493	VUYYURU HEMANTH	CSE
61	211FA16006	NANNA SANJANA	BM
62	231FC01119	KANCHUGANTLA SRINIVAS GOPI	MBA
63	201FA19006	BADE RISHIKA	CSECS
64	231FA16041	KUDULLA BHAGYA SRI	BM
65	221FC01037	CHALLA PRANATHI	MBA
66	231FA18249	KOMMANABOINA SUDHEER KUMAR	AIANDML
67	231FA04118	PATHAN NAZEER	CSE
68	211FA04374	EEVURI UMESH REDDY	CSE
69	231FA23065	NAGABHYRU KUMAR RAJU	DS
70	231FA04162	JUJJURI DIVYA	CSE
71	221FA04698	PEDDI AMRUTHA NAGA VALLI	CSE
72	231FA04660	VELPURI SAI MOUSHMI	CSE
73	231FC01023	KOPPURAVURI CHAITANYA SAI RAM	MBA

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74	201FA04425	PEDDOJU VENKATA NAGARAJUNA	CSE
75	231FA01098	GURAJALA YASWITHA	BIOTECH
76	221FA01150	NUNNA LIKHITHA SAI	BIOTECH
77	211FA07072	GADE GOWTHAM SAI	IT
78	231FA05065	GUDUDUR SATHWIK	ECE
79	211FA19026	GURIVINDAPALL BHANU PRAKASH	CSECS
80	211LA08017	SHAIK SHAKEEL	MECH
81	201FA07049	BAVIRISETTY PRASANNA KUMAR	IT
82	231FJ01049	ODIGA BAJI BABU	BCA
83	221FD01062	TALLAM SRI VYSHNAVI	MCA
84	231FA07151	KANCHARLA SUMEERA	IT
85	221FC01133	AADURI PAVAN NAGA VENKATA SEKHAR	MBA
86	231LA06005	MOHAMMAD ARSHAK	EEE
87	211FA05298	MEDI RAGHU	ECE
88	231FA20010	AMARTALURU SRUJEETH GUPTA	CSBS
89	221FA04080	MANNEPALLI RAJESH	CSE
90	231FA04C78	BETHAPUDI VINCENT SAMUEL	CSE
91	201FA01075	KASARLA NARSI REDDY	BIOTECH
92	231FA14117	SHAIK TAYYABA TASNEEM	BI
93	211FJ01041	NIKITHA BEERAM	BCA
94	211FW01020	EMULA BAJI BABU	BSC HONS
95	211FK01045	KOTA PRIYANKA	BBA
96	221FA04063	VANKA BHUVANA SAI MOUNEENDRA	CSE
97	231FA23091	KOYA JHANSI	DS
98	231FA04D45	YENIGALLA SHANMUKH	CSE
99	221FA14031	SHRUTI KUMARI	BI
100	221FA04530	NOMINI BALA PRASANA BOPANA	CSE
101	221FA04494	KOTHAPALLI VENKATA SAI SANDEEP	CSE
102	211FA08007	BATTULA KALYAN RAM	MECH
103	221FA05221	MONDITHOKA SOWMYA	ECE
104	221FA04386	TALLURI LILADHAR AKHIL	CSE
105	211FK01076	RAVELLA HEMANTH SAI	BBA
106	211FA05109	MUNNANGI HARI VARDHAN	ECE
107	231FA04A71	DUNDI SAINADH REDDY	CSE
108	211FA07089	TIRUNAGARI VENKATA GOPI KRISHNA	IT
109	201FA04208	VIJAYABHARATI K	CSE
110	201FA15074	CHINTA JYOTHI JAYAWARDHAN	FT
111	211FA07054	KATARU VEERA SHANMUKA	IT
112	221FA05199	NAGUMOTHU ROSHINI	ECE
113	231FA04433	AKKALA HEMANTH REDDY	CSE

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114	231FA04561	VASIREDDY AKSHITA NEHA	CSE
115	221FD01021	DUNDI KATHYAYANI REDDY	MCA
116	221FA04725	ADITYA KUMAR	CSE
117	231FA16054	BURHAN LATEEF	BM
118	221FA04169	RAYAPUDI PRATHYUSHA	CSE
119	221FA05088	VEERANKI SIVA NAGA PHANINDRA	ECE
120	221FA05015	GAVINI LAVANYA	ECE
121	211FA06014	BACHHANABOINA SAI PUJITHA	EEE
122	221LA03009	DANTHALA ANAND PAL	CIVIL
123	221FA23011	PALAPARTHI SHARON SUKEERTHANA	DS
124	211FA08010	BUTHUKURI MANIKANTA REDDY	MECH
125	211FK01047	LAKKI REDDY AJAY KARTHIK REDDY	BBA
126	231FC01082	NAGA LAKSHMI RAJUPALEPU	MBA
127	211LA06002	P.ROJA	EEE
128	211FA05194	VEMULAPATI SUBBA REDDY	ECE
129	211FA04460	RAVIPUDI LAKSHMI PRASANNA	CSE
130	211FA04359	KUNDAKARLA MADHURI	CSE
131	231FW01091	CHIRADZA EMMANUEL ELIAS	BSC HONS
132	181FA01142	KASULA VENKATA SAI KUMAR RAJA	BIOTECH
133	201FA04213	AVULA HARIKA	CSE
134	201FA07069	RASAMSETTY G V L BHARATH	IT
135	231FA20014	SHAIK YASIN BASHA	CSBS
136	231FW01089	CHIKOTO TAPIWANASHE MUNMARADZI	BSC HONS
137	221FA04456	PARADAPARAPU MOKSHAGNA	CSE
138	211FA05023	GHANTA VIGNESH	ECE
139	231FA18226	KROTHAPALLI HARSHA VARDHAN	AIANDML
140	211FA18015	SEELAM RUCHITHA MAHI	AIANDML
141	231FA04F47	MOTHE VAISHNAVI	CSE
142	211FA04382	VAJRALA SRI CHANDANA	CSE
143	211FA14061	SHARON KUMAR MUNAGATI	BI
144	231FA05072	ERUVURI VENKATA VASU REDDY	ECE
145	221FA06019	MUNNANGI VARSHITHA	EEE
146	201FA07068	KATIKA KALESWARAMMA	IT
147	231FA04844	KARI POOJITHA	CSE
148	201FA04462	ARIMANDA DHEERAJ REDDY	CSE
149	221FA04591	EDARA SAI NAGA LAKSHMI	CSE
150	221FC01125	CHANDOLU MANIDEEP	MBA
151	231FJ01052	JANGALA DEEPIKA	BCA
152	221FW01115	PULICHARLA PRAVALIKA	BSC HONS
153	201FA04326	INDALA JYOTHIRMAYEE	CSE

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154	231FA14129	GUDA MAHESH REDDY	BI
155	201FA14037	C VENKATA SRIHITHA	BI
156	231FC01145	TAMMA VINAY KUMAR REDDY	MBA
157	231FA23027	MALLINA SUSMITHA	DS
158	231FA18094	GANGAVARAPU DILEEP CHANDU	AIANDML
159	231FW01001	AKKALA KUSUMA	BSC HONS
160	231FA05183	MAKUTAM LAKSHMI DURGA JYOTHI	ECE
161	231FC01102	MUSKAN KUMARI JAISWAL	MBA
162	231FA04274	GRANDHE THANUJA	CSE
163	211FA19009	GOGADA JYOTHI SUBRAHMANYAM SAI	CSECS
164	221LA12016	JUVVA RAVALIKA	AG
165	221FW01171	DEV SHANKAR THAKUR	BSC HONS
166	211LA04001	AKURATHI LAKSHMANA SAGAR	CSE
167	221FA07123	KONDRAGANTI LOKESH CHOWDARY	IT
168	211FA04220	CHINTHAPALLI BHAVANA CHOUDARY	CSE
169	231FA05064	SHAIK PAKALAPATI MABU SUBHANI	ECE
170	231FA07058	TALLA NAGA MALLESWARA RAO	IT
171	231FA04007	PALLAPOTHU VINAY	CSE
172	201FA04202	CHITTURI YESWANTH	CSE
173	231FA04A78	KALLAGUNTA VENKATA LAKSHMI	CSE
174	201FA15056	MUTYAM SHARON ROJE	FT
175	231FA04E08	EPPALA TEJA SRI	CSE
176	231FA01002	MANCHIKALAPUDI PRANEETHA CHOWDARY	BIOTECH
177	221FA05060	PERAM TANUJA	ECE
178	201FA18009	SANAGALA BHAVANA	AIANDML
179	221FA21003	MANCHINA SIVA BHARGAV	RA
180	231FA18275	MODEM RUTHWIK	AIANDML
181	211FA14036	GORANTLA BALA SARASWATHI	BI
182	221FA14075	SHAIK FUZEL AKTHER	BI
183	231LA02003	BANDELA UDAYABHASKAR	CHEM
184	211FA06003	KODURU HARIKA NAGA LAKSHMI PRIYA	EEE
185	201FA01105	BATTULA DHARANI	BIOTECH
186	211FA04626	RAM KRIPAL GAURAV	CSE
187	211FA05117	GADEKARIKONDA DEVENDRA RAYAL	ECE
188	201FA04267	GADIYAMULA SIVA GANESWARA RAO	CSE
189	221FA07089	JAKKAM LAVANYA	IT
190	231FA23048	KAKUMANU KALANJALI	DS
191	201FA14002	SURASANI VARUN KUMAR REDDY	BI
192	211FK01003	ANGILIKA KRITHIKA	BBA

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193	231FA05223	SOMAROUTHU D APARNA	ECE
194	201FA04160	MADDIREDDY VENKATA SESA SAI SRIJA	CSE
195	211FA04261	MANDELA KESAVA SAI MANIKANTA	CSE
196	231FA14112	MOHAMMED FATHIMA KHAN	BI
197	201FA04456	REDDY RAJESWARI	CSE
198	211FA05289	NEELAM PHANEENDRA SAI	ECE
199	201FA14016	CHIRALA SRAVANI	BI
200	221FA04040	MUPPALLA BHAVYA SRI	CSE
201	221LA12014	VADDE MOUNIKA	AG
202	221FA07024	BAPATHU SRIRAM REDDY	IT
203	221FA04073	BELLAMKONDA CHAITANYA NANDINI	CSE
204	231LA22003	KONDLAPALLI GOWTHAM	TT
205	201FA04031	SANAKA SHANMUKA SRI HARSHA	CSE
206	201FA07062	CHINTAKUNTLA VIVEK REDDY	IT
207	221FA04370	EDA SAI NITHIN REDDY	CSE
208	231FA18063	TAVVA JAGADISH	AIANDML
209	231FA16037	PUDUCHERI PADMA SRI	BM
210	231FA06039	MAZANI KUDAKWASHE BLESSED	EEE
211	231FA04G81	KOMATIGUNTA YAMUNA	CSE
212	231FA18062	PRAGADA KUMAR	AIANDML
213	211FA04116	JAMPANI BHAVYASREE	CSE
214	231FA04878	KASSETTY LOHITH KUMAR	CSE
215	211FM01006	BANDARU NANDINI	BSC
216	221FA04687	BALUSU DIVYA SNEHITHA	CSE
217	231FA14050	TATIPARTHI MADHURA VANI	BI
218	231FA04722	VEMPA VASANTHI	CSE
219	221FA18045	KORRA VENKATA KRISHNA NAGA MANIKANTA	AIANDML
220	221FA04282	TADIKONDA BHAGAT SAI	CSE
221	231FA18431	DARAM SRINIVASA REDDY	AIANDML
222	231FK01066	VADRANAM POORNA BALAJI	BBA
223	211FA05229	PARIMI SAI TEJA	ECE
224	211FA04034	LINGINENI LAKSHMI SOWJANYA	CSE
225	221FA18131	GURRALA RAGHU VARDHAN	AIANDML
226	231FA01102	SHAIK BABI	BIOTECH
227	211FA04641	PARISA KUMAR RAJA	CSE
228	231FA04693	GADIREDDY SRI SRESHTA	CSE
229	231FA16038	KAPULAPALLI LAKSHMI ASRITHA REDDY	BM
230	221FA05081	PAREPALLI LIKITH	ECE
231	231FA04G83	YALAVARTHI MONIKA	CSE

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232	211FA01018	GOBATTINI CHANDANA	BIOTECH
233	231FK01101	DASARI HIMAGIRI	BBA
234	231FA18045	MUPPASANI VENKATA SAMYUKTHA	AIANDML
235	221FA04644	BACHINA NIKHILESH	CSE
236	221FA05143	MATTAPARTHI VENKATESH	ECE
237	201FA01027	KANUGOLU HEMANTH KUMAR	BIOTECH
238	221FJ01010	BAPATLA SOMESWAR	BCA
239	231FW01048	PATHAN SAMEENA KHANAM	BSC HONS
240	231FA04B95	SHAIK MUZEEF	CSE
241	231FA04A86	TEJESH PERAM	CSE
242	221FA04696	GUNTANALA VENKATAKRISHNA	CSE
243	201FA04248	DARLA PHANI PRAHARSHA	CSE
244	231FA04A82	ALLAM VARSHINI	CSE
245	211FA04390	PARIMI VENKATA SAI YOGESWAR	CSE
246	201FA01117	KOYA TEJA	BIOTECH
247	211FA14007	CHINTAM PUNVITH REDDY	BI
248	211FA01002	VANAMA LAKSHMI PRIYANKA	BIOTECH
249	221FA04724	PITLA MANOHAR	CSE
250	231FA14007	MYNENI JANANI SRI	BI
251	221FA18057	BANDLAMUDI MOUNIKA	AIANDML
252	221FA14069	SHAIK NADEEM	BI
253	221FA01010	MALLADI PRAVALLIKA	BIOTECH
254	221FJ01044	MOHAMED ADAM HASSAN ADAM	BCA
255	221FW01130	PODILI SRI SAI GOPI KRISHNA	BSC HONS
256	211FK01115	YEPURI VIJITHA	BBA



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Bird Flu**

Date: 27.02.2024

Venue: ZPH School Garuvu Palem

We the team UEAC has conducted an event to bring awareness on BIRD FLU in Garuvupalem village. The main aim of this event to educate people about bird flu and what is effect of bird flu to humans.

Our team UEAC members from Biotech department organized this event. This event is about viral infection that primarily effects birds. It's important for people to understand that there are various strains of bird flu, some of which can infects humans. This event makes the people to understand transmission of the disease from birds to humans and about symptoms in humans can range from mild to severe and may include fever, cough, sore throat and respiratory difficulties. They came to about prevention and global concerns by avoiding eating chickens and taking safety measures from children to adults. Our NSS volunteers along with few Chief organizers and Chief coordinators went to the village and explained to people about the consequences of Bird Flu.

The program was commenced on assemble of NSS volunteers and members along with the organizers at 01:30 PM. They were divided into groups and they started in the college by 01:45 PM. They reached the village by 02:00 PM. Each group address the people and they returned to college by 04:00 PM.



Awareness on Bird Flue on 27.02.24

List of Volunteers:

Awareness on Bird Flue on 27.02.24			
S.NO	REG.NO	NAME	Branch
1	211FA01079	G.BV.SAI TEJA	BIOTECH
2	211FA01106	S.VARSHINI	BIOTECH
3	211FA01117	S.VARSHA	BIOTECH
4	211FA01076	M.SUJITHA	BIOTECH
5	211FA01087	B.RAMYA	BIOTECH

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6	211FA01084	NITHYA	BIOTECH
7	211FA14003	K.TEJASWINI	BIOTECH
8	211FA14059	M.AMMANNI	BIOTECH
9	211FA14065	PRASUNA	BIOTECH
10	211FA14029	DHATRI	BIOTECH
11	221FA01050	SK.SAMIMOON	BIOTECH
12	221FA01031	K.RAVEENA	BIOTECH
13	221FA01030	M.SINDHU	BIOTECH
14	221FA01024	K.SAI RAM	BIOTECH
15	221FA01038	T.SAHITHI	BIOTECH
16	221FA01005	PRINCE	BIOTECH
17	221FA01001	RAZA	BIOTECH
18	221FA01027	NITISH	BIOTECH
19	221FA01112	HARSHINI	BIOTECH
20	221FA01104	J.TRIVENI	BIOTECH
21	221FA01109	M.ASWITHA	BIOTECH
22	221FA01105	MD.FARHEEN	BIOTECH
23	221FA01135	T.BHAVYA	BIOTECH
24	221FA01083	P.SWARNA	BIOTECH
25	221FA01082	M.DIVYA	BIOTECH
26	221FA01119	T.KAVYA	BIOTECH
27	221FA01163	S.HARSHAD	BIOTECH
28	221FA01146	A.M.HUSSAIN	BIOTECH
29	221FA01167	MADHAVI	BIOTECH
30	221FA01183	VIGNA	BIOTECH



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Bird Flu**

Date: 27.02.2024

Venue: Primary School Selapadu

We the team UEAC of the Informational Technology department conducted the event about “Awareness on Bird Flu” on 28-February-2024 in Selapadu primary school. The main goal of organizing this event is to raise awareness about bird flu for school students to help them understand why it's important to prevent the spread of this illness.

We want to teach them about bird flu, how it can affect people and birds, and the simple steps they can take to stay safe. By doing this, we hope to give students the knowledge they need to protect themselves and others from bird flu. The aim is to encourage them to adopt good habits, like proper hygiene and taking precautions around birds, so they can help stop the virus from spreading. Our goal is to keep everyone healthy and safe by making sure students know what to do to prevent bird flu.

A total of 20 including Chief organizers, Chief Co-ordinator, Sec coordinators and Volunteers of IT participated in the event. Firstly, we all gathered at U block ground floor in the university at 01:45 PM. We started from the university by 02:00 PM and reached the school by 02:20 PM. We started the event by 02:20 PM and started explaining about the Bird Flu. We explained what is Bird Flu, the Causes of bird flu, and precautions to prevent bird flu. After completion of giving lecture to the students, we ended the event by 03:30 PM. We returned to the college by 03:45 PM.



The Team UEAC conducting Awareness on Bird flu on 27.02.24

List of Volunteers:

Awareness on Bird flu on 27.02.24			
S. No	Reg. No	Name	Branch
1	221FA07001	GUDIPATI SIRI KUMAR	IT
2	221FA07005	KONDEPU DINESH KUMAR	IT
3	221FA07009	BOLLA LALITHA SRI	IT
4	221FA07012	DESU PURNA VENKATA NAGENDRA VAISHNAVI	IT
5	221FA07015	PATTA MALLIKHARJUN	IT

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**University Extension Activity Council (UEAC)
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6	221FA07019	ELSHAFEAI ABDELMONIM ABDELRAHMAN MOHAMED	IT
7	221FA07024	BAPATHU SRIRAM REDDY	IT
8	221FA07028	YARRU YOGA LAKSHMI THIRUPATHAMMA	IT
9	221FA07032	ALLU MAHESH POTHAN	IT
10	221FA07037	PARASA JAGADEESH GOWD	IT
11	221FA07045	SHAIK KHAJA MOHIDDIN CHISTY	IT
12	221FA07048	VALLABHANENI VUHARIKA	IT
13	221FA07052	GANDRU AKHILA	IT
14	221FA07058	MADHANU MOKSHA NITHISHA	IT
15	221FA07062	CHIRUMAMILLA TRIVENI	IT
16	221FA07070	ALLANKI CHAKRI CHAITANYA	IT
17	221FA07083	AMMISSETTI VENKATA VAMSI KRISHNA	IT
18	221FA07095	POLAVARAPU BHANU TEJA	IT
19	221FA07105	NADIMPALLI TARUN SAI KUMAR	IT
20	221FA07123	KONDRAGANTI LOKESH CHOWDARY	IT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Mental Health**

Date:27.02.2024

Venue: Primary School Selapadu

On 6th January 2024 in our adopted school Selapadu, The Team UEAC conducted an event on Awareness on mental health at Primary School Selapadu. The 20 students including section and chief organizers, coordinators and volunteers participated in this event, by educating students about mental health. The academic environment, peer interactions, and societal pressures can significantly impact students' mental well-being. Thus, it is essential to create awareness and provide resources that promote mental health within the school setting. Anyway, the participants were highly enthusiastic to make it a big success. The students came to know about the significance of mental health and Creating an open and supportive atmosphere encourages students to discuss their feelings without fear of judgment like emotional, psychological, and social well-being. Every step of the program was appreciated by the representatives of the administration. This event created a great stir among the students.



Awareness on Mental health in Selapadu on 27.02.2024

List of Volunteers:

Awareness on Mental health on 27.02.2024			
S. No	Reg. No	Name	Branch
1	221FA07001	GUDIPATI SIRI KUMAR	IT
2	221FA07005	KONDEPU DINESH KUMAR	IT
3	221FA07009	BOLLA LALITHA SRI	IT

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**University Extension Activity Council (UEAC)
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4	221FA07012	DESU PURNA VENKATA NAGENDRA VAISHNAVI	IT
5	221FA07015	PATTA MALLIKHARJUN	IT
6	221FA07019	ELSHAFEAI ABDELMONIM ABDELRAHMAN MOHAMED	IT
7	221FA07024	BAPATHU SRIRAM REDDY	IT
8	221FA07028	YARRU YOGA LAKSHMI THIRUPATHAMMA	IT
9	221FA07032	ALLU MAHESH POTHAN	IT
10	221FA07037	PARASA JAGADEESH GOWD	IT
11	221FA07045	SHAIK KHAJA MOHIDDIN CHISTY	IT
12	221FA07048	VALLABHANENI VUHARIKA	IT
13	221FA07052	GANDRU AKHILA	IT
14	221FA07058	MADHANU MOKSHA NITHISHA	IT
15	221FA07062	CHIRUMAMILLA TRIVENI	IT
16	221FA07070	ALLANKI CHAKRI CHAITANYA	IT
17	221FA07083	AMMISSETTI VENKATA VAMSI KRISHNA	IT
18	221FA07095	POLAVARAPU BHANU TEJA	IT
19	221FA07105	NADIMPALLI TARUN SAI KUMAR	IT
20	221FA07123	KONDRAGANTI LOKESH CHOWDARY	IT



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Bird Flu**

Date: 28.02.2024

We the team UEAC had conducted an event to bring awareness on Bird Flu in Vejendla village. The main aim of this event is to educate people about bird flu and what is the effect of bird flu on humans.

Our team UEAC members from ACSE department organized this event. This event is about a viral infection that primarily affects birds. It's important for people to understand that there are various strains of bird flu, some of which can infect humans. This event makes people understand the transmission of the disease from birds to humans, and symptoms in humans can range from mild to severe and may include fever, cough, sore throat and respiratory difficulties. They came to know about prevention and global concerns by avoiding eating chickens and taking safety measures from children to adults. Our UEAC volunteers along with their organizers and Chief coordinators went to the village and explained to people about the consequences of Bird Flu.

The program commenced an assembly of NSS volunteers and members along with the organizers at 1:30 PM. They reached the village by 2:30 PM. Each group addressed the people and they returned to college by 4:00 PM.



List of Volunteers:

Awareness on Bird flu on 28.02.2024			
S. No	Reg. No	Name	Branch
1	221FA04005	AYUSH KUMAR	CSE

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2	221FA04013	GALI YASASWI	CSE
3	221FA04019	RAMINENI DHANUSH BABU	CSE
4	221FA04028	KALLAM SRIDHAR REDDY	CSE
5	221FA04033	PIKKI KAVYANJALI	CSE
6	221FA04041	PAGADALA BHAGYA SRI	CSE
7	221FA04046	SAI BHARGAV REDDY KATASANI	CSE
8	221FA04052	TALLA KOUSHIK	CSE
9	221FA04059	NALLAMEKALA KALYAN RAM	CSE
10	221FA04067	GUNTUPALLI PRANAV	CSE
11	221FA04080	MANNEPALLI RAJESH	CSE
12	221FA04075	PANTHANGI PRAHARSHITHA	CSE
13	221FA04081	BILADUGU RAMANJAMMA	CSE
14	221FA04086	SYED ASHRAF ALI	CSE
15	221FA04096	NADIMPALLI ABHIRAMA RAJU	CSE
16	221FA04105	SANIKOMMU RENUKA	CSE
17	221FA04117	PASUPELETI YESUBABU	CSE
18	221FA04129	TALLURI HIMASREE	CSE
19	221FA04137	GHANTA TRIVIKRAM	CSE
20	221FA04152	PUSULURI PUJITHA	CSE
21	221FA04170	NEPPALLI HARI VINOD	CSE
22	221FA04181	MEDIDI SANDEEP KUMAR	CSE
23	221FA04193	SHAIK SHAWANA FATHIMA	CSE
24	221FA04204	TALLURI HARSHA SRI SAI LAKSHMI	CSE
25	221FA04216	UPPALA SUDHARSAN	CSE
26	221FA04221	MUDRAGADDA ANUSHA	CSE
27	211FA04438	KUNTA SATEESH	CSE
28	211FA04442	NELLURU LAXMI PRATHYUSHA	CSE
29	211FA04452	UNDAVALLI PRIYANKA	CSE
30	211FA04459	MUPPARAJU VIJAYA LAKSHMI	CSE
31	211FA04473	VEGULLA KRISHNA LIKITHA	CSE
32	211FA04482	ADDANKI HEMASRI	CSE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Cyber Crimes**

Date: 28.02.2024

Venue: Vejandla

We the team UEAC had conducted an event to bring awareness on Cyber Crimes in Vejandla village. The motive of this event is to educate people about cybercrimes and to know the effects caused by cybercrimes.

Our team UEAC members from the ACSE department organized this event. This event is about privacy and security while using mobiles. People need to understand that there are various ways for trapping their personal information and their bank accounts will be hacked for money. This event makes people understand the cyber-crimes that are being activated online. The solution is by having strong passwords, and being conscious while opening any links sent through messages. They came to know that privacy is more important than their phones. A total of 32 NSS volunteers along with Chief organizers and Chief coordinators went to the village and explained to people about the impacts of Cyber-crimes.

The program commenced an assembly of NSS volunteers and members along with the organizers at 1:30 PM. They reached the village by 2:30 PM. Each group addressed the people and they returned to college by 4:00 PM.



Awareness on Cybercrimes at Vejandla village on 28.02.2024

List of Volunteers:

Awareness on Cybercrimes on 28.02.2024			
S. No	Reg. No	Name	Branch
1	221FA04005	AYUSH KUMAR	CSE

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2	221FA04013	GALI YASASWI	CSE
3	221FA04019	RAMINENI DHANUSH BABU	CSE
4	221FA04028	KALLAM SRIDHAR REDDY	CSE
5	221FA04033	PIKKI KAVYANJALI	CSE
6	221FA04041	PAGADALA BHAGYA SRI	CSE
7	221FA04046	SAI BHARGAV REDDY KATASANI	CSE
8	221FA04052	TALLA KOUSHIK	CSE
9	221FA04059	NALLAMEKALA KALYAN RAM	CSE
10	221FA04067	GUNTUPALLI PRANAV	CSE
11	221FA04080	MANNEPALLI RAJESH	CSE
12	221FA04075	PANTHANGI PRAHARSHITHA	CSE
13	221FA04081	BILADUGU RAMANJAMMA	CSE
14	221FA04086	SYED ASHRAF ALI	CSE
15	221FA04096	NADIMPALLI ABHIRAMA RAJU	CSE
16	221FA04105	SANIKOMMU RENUKA	CSE
17	221FA04117	PASUPULETI YESUBABU	CSE
18	221FA04129	TALLURI HIMASREE	CSE
19	221FA04137	GHANTA TRIVIKRAM	CSE
20	221FA04152	PUSULURI PUJITHA	CSE
21	221FA04170	NEPPALLI HARI VINOD	CSE
22	221FA04181	MEDIDI SANDEEP KUMAR	CSE
23	221FA04193	SHAIK SHAWANA FATHIMA	CSE
24	221FA04204	TALLURI HARSHA SRI SAI LAKSHMI	CSE
25	221FA04216	UPPALA SUDHARSAN	CSE
26	221FA04221	MUDRAGADDA ANUSHA	CSE
27	211FA04438	KUNTA SATEESH	CSE
28	211FA04442	NELLURU LAXMI PRATHYUSHA	CSE
29	211FA04452	UNDAVALLI PRIYANKA	CSE
30	211FA04459	MUPPARAJU VIJAYA LAKSHMI	CSE
31	211FA04473	VEGULLA KRISHNA LIKITHA	CSE
32	211FA04482	ADDANKI HEMASRI	CSE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Health and Nutrition**

Date :29.02.2024

Venue: Vejudla

We, the team UEAC, conducted an "Awareness on Health and Nutrition" event on 29 February 2024. The aim of the event is to educate individuals about the importance of maintaining a balanced diet and healthy lifestyle. The event focused on providing valuable information and practical tips to promote overall well-being through proper nutrition.

25 members including the chief organizers and chief coordinators took part in this event. The program began with an introductory session by the organizers, highlighting the importance of health and nutrition in maintaining overall well-being, followed by informative presentations on the fundamentals of nutrition, including the importance of vitamins, minerals, proteins, carbohydrates, and fats in the diet. Students engaged in discussions and interactive sessions to learn about the nutritional requirements for different age groups and lifestyles.

Our UEAC team members including chief organizers, chief coordinators, section coordinators and volunteers gathered in college. They have split into groups according to their disciplines of the branches, and each group has contributed their efforts to bring awareness to students. The event started at 2:00 PM and completed at 4:00 PM.



Awareness on Health And Nutrition on 29.02.2024

List of Volunteers:

Awareness on Health And Nutrition on 29.02.2024			
S.No	Reg.No	Name	Branch

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1	221FC01005	KOTTE GOPIKRISHNA	MBA
2	221FC01010	INDRAPRIYA DHARASHINI MEDAGAM	MBA
3	221FC01017	GADAMSETTY VAMSI KUMAR	MBA
4	221FC01024	KOLLA SNEHA	MBA
5	221FC01029	KURAPARI KANAKA DEEPTHI	MBA
6	221FC01035	KONDA MOHAN MANIDEEP REDDY	MBA
7	221FC01044	SHAIK SHIRIN	MBA
8	221FC01050	JITTA VENKATA LAKSHMI	MBA
9	221FC01055	SHAIK NAGURBI	MBA
10	221FC01062	PEETHALA KARTHIK YADAV	MBA
11	221FC01071	DASARI HARI GANESH	MBA
12	221FC01075	AITHANEDI NIHARIKA	MBA
13	221FC01078	KANCHARLA NARENDRA BABU	MBA
14	221FC01082	GATTUPALLI VENKATA SRAVANA LAKSHMI	MBA
15	221FC01086	KATUMALA DINESH	MBA
16	221FC01089	PULIKAM PRIYANKA	MBA
17	221FC01094	MULA RENUKA	MBA
18	221FC01097	MACHERLA ELINA	MBA
19	221FC01111	BEJJANKI SAI PRASANTH	MBA
20	221FC01117	SURAGANI VENKATESH	MBA
21	221FC01122	AMMISSETTY KEERTHI	MBA
22	221FC01128	MANDLA SWATHI	MBA
23	221FC01134	SANKULA SIVA SANKAR	MBA
24	221FC01139	ARAVAPALLI SIVA NAGENDRAM	MBA
25	221FC01147	GUNDLAKUNTA NAGALAKSHMI	MBA



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Diversity and Inclusion**

Date:29.02.2024

Venue: ZPH School Vejudla

We, the team UEAC, conducted an "Awareness on Diversity and inclusion" event on 29 February 2024. The aim of event is to foster understanding, respect, and appreciation for diversity in all its forms. The event sought to create a welcoming and inclusive environment where individuals from different backgrounds feel valued and respected. This event was organised with the collaboration of MBA and BBA students.

25 members including the chief organisers and chief coordinators took part in this event. The event started with an opening address highlighting the significance of diversity and inclusion in today's society. The Diversity and Inclusion Seminar served as a platform for dialogue, reflection, and learning, encouraging participants to embrace diversity and work towards building communities that are more inclusive. By fostering empathy, understanding, and mutual respect, the event contributed to creating a more equitable and harmonious society where everyone feels valued and empowered to contribute their unique perspectives and talents

Our UEAC team members including chief organisers, chief coordinators, section coordinators and volunteers gathered in college. They have divided into groups, takes place according to their disciplines of the branches, and each group has contributed their efforts to bring awareness in children. The event started by 2:00 PM. Finally, event completed at 4:00PM.



List of Volunteers:

Awareness on Diversity And Inclusion on 29.02.2024			
S. No	Reg. No	Name	Branch

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1	221FC01005	KOTTE GOPIKRISHNA	MBA
2	221FC01010	INDRAPRIYA DHARASHINI MEDAGAM	MBA
3	221FC01017	GADAMSETTY VAMSI KUMAR	MBA
4	221FC01024	KOLLA SNEHA	MBA
5	221FC01029	KURAPARI KANAKA DEEPTHI	MBA
6	221FC01035	KONDA MOHAN MANIDEEP REDDY	MBA
7	221FC01044	SHAIK SHIRIN	MBA
8	221FC01050	JITTA VENKATA LAKSHMI	MBA
9	221FC01055	SHAIK NAGURBI	MBA
10	221FC01062	PEETHALA KARTHIK YADAV	MBA
11	221FC01071	DASARI HARI GANESH	MBA
12	221FC01075	AITHANEDI NIHARIKA	MBA
13	221FC01078	KANCHARLA NARENDRA BABU	MBA
14	221FC01082	GATTUPALLI VENKATA SRAVANA LAKSHMI	MBA
15	221FC01086	KATUMALA DINESH	MBA
16	221FC01089	PULIKAM PRIYANKA	MBA
17	221FC01094	MULA RENUKA	MBA
18	221FC01097	MACHERLA ELINA	MBA
19	221FC01111	BEJJANKI SAI PRASANTH	MBA
20	221FC01117	SURAGANI VENKATESH	MBA
21	221FC01122	AMMISSETTY KEERTHI	MBA
22	221FC01128	MANDLA SWATHI	MBA
23	221FC01134	SANKULA SIVA SANKAR	MBA
24	221FC01139	ARAVAPALLI SIVA NAGENDRAM	MBA
25	221FC01147	GUNDLAKUNTA NAGALAKSHMI	MBA



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University Extension Activity Council (UEAC) Annual Report – 2023-24 Awareness on Women Empowerment

Date:29.02.2024

Venue: ZPH School Vejudla

We, the team UEAC, conducted the "Women Empowerment" event on 29 February 2024. The aim of the event is to advocate for gender equality, empower women, and promote their participation in all spheres of life. The event aimed to address challenges faced by women, celebrate their achievements and inspire action towards creating a more inclusive and equitable society.

25 members including the chief organizers and chief coordinators took part in this event. This event commenced with an inspiring opening address emphasizing the significance of women's empowerment in building inclusive and equitable societies. They explored key issues affecting women, including access to education, healthcare, economic opportunities, and representation in decision-making processes. This event serves as a platform to voice their concerns, celebrate their achievements, and access resources and support, the event contributed to fostering a culture of empowerment and inclusivity where women can thrive and contribute their full potential to society.

Our UEAC team members including chief organizers, chief coordinators, section coordinators and volunteers gathered in college. They have split into groups, and each group has contributed their efforts to bring awareness to students. The event started at 2:00 PM and completed at 4:00 PM.



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List of Volunteers:

Awareness on Women Empowerment on 29.02.2024			
S. No	Reg. No	Name	Branch
1	221FC01005	KOTTE GOPIKRISHNA	MBA
2	221FC01010	INDRAPRIYA DHARASHINI MEDAGAM	MBA
3	221FC01017	GADAMSETTY VAMSI KUMAR	MBA
4	221FC01024	KOLLA SNEHA	MBA
5	221FC01029	KURAPARI KANAKA DEEPTHI	MBA
6	221FC01035	KONDA MOHAN MANIDEEP REDDY	MBA
7	221FC01044	SHAIK SHIRIN	MBA
8	221FC01050	JITTA VENKATA LAKSHMI	MBA
9	221FC01055	SHAIK NAGURBI	MBA
10	221FC01062	PEETHALA KARTHIK YADAV	MBA
11	221FC01071	DASARI HARI GANESH	MBA
12	221FC01075	AITHANEDI NIHARIKA	MBA
13	221FC01078	KANCHARLA NARENDRA BABU	MBA
14	221FC01082	GATTUPALLI VENKATA SRAVANA LAKSHMI	MBA
15	221FC01086	KATUMALA DINESH	MBA
16	221FC01089	PULIKAM PRIYANKA	MBA
17	221FC01094	MULA RENUKA	MBA
18	221FC01097	MACHERLA ELINA	MBA
19	221FC01111	BEJANKI SAI PRASANTH	MBA
20	221FC01117	SURAGANI VENKATESH	MBA
21	221FC01122	AMMISSETTY KEERTHI	MBA
22	221FC01128	MANDLA SWATHI	MBA
23	221FC01134	SANKULA SIVA SANKAR	MBA
24	221FC01139	ARAVAPALLI SIVA NAGENDRAM	MBA
25	221FC01147	GUNDLAKUNTA NAGALAKSHMI	MBA



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Environmental conservation**

Date:29.02.2024

Venue: ZPH School Narakoduru

We, the team UEAC, conducted an “Environmental conservation” event on 29 February 2024. The aim of the event is to address pressing environmental issues and promote sustainable practices. This event aimed to raise awareness, foster collaboration, and inspire action towards protecting and preserving the environment for future generations.

25 members including the chief organizers and chief coordinators took part in this event. This event began with an opening ceremony, during which distinguished speakers emphasized the urgency of environmental conservation. Participants actively participated in breakout sessions focused on practical strategies for reducing environmental footprint and promoting eco-friendly practices in various sectors, including agriculture, industry, transportation, and urban development. Discussions facilitated dialogue among stakeholders, encouraging knowledge-sharing and collaboration towards common environmental goals.

Our UEAC team members including chief organizers, chief coordinators, section coordinators and volunteers gathered in college. They have split into groups, and each group has contributed their efforts to bring awareness to students. The event started at 2:00 PM and completed at 4:00 PM.



Awareness on Environmental Conservation on 29.02.2024

List of Volunteers:

Awareness on Environmental conservation on 29.02.2024			
S. No	Reg. No	Name	Branch
1	221FC01005	KOTTE GOPIKRISHNA	MBA
2	221FC01010	INDRAPRIYA DHARASHINI MEDAGAM	MBA
3	221FC01017	GADAMSETTY VAMSI KUMAR	MBA
4	221FC01024	KOLLA SNEHA	MBA
5	221FC01029	KURAPARI KANAKA DEEPTHI	MBA
6	221FC01035	KONDA MOHAN MANIDEEP REDDY	MBA

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7	221FC01044	SHAIK SHIRIN	MBA
8	221FC01050	JITTA VENKATA LAKSHMI	MBA
9	221FC01055	SHAIK NAGURBI	MBA
10	221FC01062	PEETHALA KARTHIK YADAV	MBA
11	221FC01071	DASARI HARI GANESH	MBA
12	221FC01075	AITHANEDI NIHARIKA	MBA
13	221FC01078	KANCHARLA NARENDRA BABU	MBA
14	221FC01082	GATTUPALLI VENKATA SRAVANA LAKSHMI	MBA
15	221FC01086	KATUMALA DINESH	MBA
16	221FC01089	PULIKAM PRIYANKA	MBA
17	221FC01094	MULA RENUKA	MBA
18	221FC01097	MACHERLA ELINA	MBA
19	221FC01111	BEJJANKI SAI PRASANTH	MBA
20	221FC01117	SURAGANI VENKATESH	MBA
21	221FC01122	AMMISSETTY KEERTHI	MBA
22	221FC01128	MANDLA SWATHI	MBA
23	221FC01134	SANKULA SIVA SANKAR	MBA
24	221FC01139	ARAVAPALLI SIVA NAGENDRAM	MBA
25	221FC01147	GUNDLAKUNTA NAGALAKSHMI	MBA



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Health and Nutrition**

Date :29.02.2024

Venue: ZPH School Narakoduru

We, the team UEAC, conducted an "Awareness on Health and Nutrition" event on 29 February 2024. The aim of the event is to educate individuals about the importance of maintaining a balanced diet and healthy lifestyle. The event focused on providing valuable information and practical tips to promote overall well-being through proper nutrition.

30 members including the chief organizers and chief coordinators took part in this event. The program began with an introductory session by the organizers, highlighting the importance of health and nutrition in maintaining overall well-being, followed by informative presentations on the fundamentals of nutrition, including the importance of vitamins, minerals, proteins, carbohydrates, and fats in the diet. Participants engaged in discussions and interactive sessions to learn about the nutritional requirements for different age groups and lifestyles.

Our UEAC team members including chief organizers, chief coordinators, section coordinators and volunteers gathered in college. They have split into groups according to their disciplines of the branches, and each group has contributed their efforts to bring awareness to students. The event started at 2:00 PM and completed at 4:00 PM.



Awareness on Health And Nutrition on 29.02.2024

List of Volunteers:

Awareness on Health And Nutrition on 29.02.2024			
S. No	Reg. No	Name	Branch
1	221FK01010	BHARATH ABHINAY DODDA	BBA
2	221FK01017	CHATTU SATVIK	BBA
3	221FK01023	DASARI SRI PRANATHI	BBA
4	221FK01026	EANUGULA YASWANTH	BBA
5	221FK01036	JAKKU VENKATA VIJAY REDDY	BBA
6	221FK01043	KURRI ASRITH REDDY	BBA
7	221FK01049	MOHAMMAD FARJANA	BBA

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**University Extension Activity Council (UEAC)
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8	221FK01053	NALLABOTULA SOUMYA	BBA
9	221FK01057	PANCHARIYA BHAVESH	BBA
10	221FK01060	PERAM VENKATA SAI SAMPATH	BBA
11	221FK01064	PULI BHAVYA SREE	BBA
12	221FK01071	SHAIK ABDUL GAFFAR	BBA
13	221FK01077	SHIVAM KUMAR	BBA
14	221FK01083	VIRAJ SHARMA	BBA
15	221FK01088	POLISETTY S H N MANIKANTA	BBA
16	221FK01095	LAGHUMAVARAPU SIVA NAGA MANI SWETHA	BBA
17	221FK01101	SADINENI RADHIKA	BBA
18	221FK01103	RATHAMSHETTY BHUVANESHWAR	BBA
19	221FK01107	GALIZERUGULA BHANU TEJA	BBA
20	211FK01045	KOTA PRIYANKA	BBA
21	211FK01050	MALLADI SAI ANVITHA	BBA
22	211FK01059	MUKKAMALLA KARTHIK REDDY	BBA
23	211FK01064	NARSING KEERTHI PRIYANKA	BBA
24	211FK01071	PONNAPATI AKESH REDDY	BBA
25	211FK01078	RAVINUTHALA JOSEPH SUNEETH	BBA
26	211FK01083	SHAIK KHURSHID	BBA
27	211FK01087	SHAIK CHEJARLA JANNATH HUSSAIN	BBA
28	211FK01092	SHAIK MOHAMMAD MUSTHAFA	BBA
29	211FK01096	SHAIK SAMADH	BBA
30	211FK01102	TALLA GOKUL KRISHNA	BBA



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Diversity and Inclusion**

Date:29.02.2024

Venue: ZPHS Narakoduru

We, the team UEAC, conducted an "Awareness on Diversity and Inclusion" event on 29 February 2024 at ZPHS, Narakoduru. The event aims to foster understanding, respect, and appreciation for diversity in all its forms. The event sought to create a welcoming and inclusive environment where individuals from different backgrounds feel valued and respected.

This event was organized with the collaboration of MBA and BBA students.30 members including the chief organizers and chief coordinators took part in this event. The event started with an opening address highlighting the significance of diversity and inclusion in today's society. The Diversity and Inclusion Seminar served as a platform for dialogue, reflection, and learning, encouraging participants to embrace diversity and work towards building more inclusive communities. By fostering empathy, understanding, and mutual respect, the event contributed to creating a more equitable and harmonious society where everyone feels valued and empowered to contribute their unique perspectives and talents

Our UEAC team members including chief organizers, chief coordinators, section coordinators and volunteers gathered in college. They have divided into groups, taking place according to their disciplines of the branches, and each group has contributed their efforts to bring awareness to children. The event started at 2:00 PM and completed by 4:00 PM



Awareness on Diversity and Inclusion on 29.02.2024

List of Volunteers:

Awareness on Diversity And Inclusion on 29.02.2024			
S. No	Reg. No	Name	Branch
1	221FK01010	BHARATH ABHINAY DODDA	BBA
2	221FK01017	CHATTU SATVIK	BBA
3	221FK01023	DASARI SRI PRANATHI	BBA
4	221FK01026	EANUGULA YASWANTH	BBA
5	221FK01036	JAKKU VENKATA VIJAY REDDY	BBA

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**University Extension Activity Council (UEAC)
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6	221FK01043	KURRI ASRITH REDDY	BBA
7	221FK01049	MOHAMMAD FARJANA	BBA
8	221FK01053	NALLABOTULA SOUMYA	BBA
9	221FK01057	PANCHARIYA BHAVESH	BBA
10	221FK01060	PERAM VENKATA SAI SAMPATH	BBA
11	221FK01064	PULI BHAVYA SREE	BBA
12	221FK01071	SHAIK ABDUL GAFFAR	BBA
13	221FK01077	SHIVAM KUMAR	BBA
14	221FK01083	VIRAJ SHARMA	BBA
15	221FK01088	POLISSETTY S H N MANIKANTA	BBA
16	221FK01095	LAGHUMAVARAPU SIVA NAGA MANI SWETHA	BBA
17	221FK01101	SADINENI RADHIKA	BBA
18	221FK01103	RATHAMSHETTY BHUVANESHWAR	BBA
19	221FK01107	GALIZERUGULA BHANU TEJA	BBA
20	211FK01045	KOTA PRIYANKA	BBA
21	211FK01050	MALLADI SAI ANVITHA	BBA
22	211FK01059	MUKKAMALLA KARTHIK REDDY	BBA
23	211FK01064	NARSING KEERTHI PRIYANKA	BBA
24	211FK01071	PONNAPATI AKESH REDDY	BBA
25	211FK01078	RAVINUTHALA JOSEPH SUNEETH	BBA
26	211FK01083	SHAIK KHURSHID	BBA
27	211FK01087	SHAIK CHEJARLA JANNATH HUSSAIN	BBA
28	211FK01092	SHAIK MOHAMMAD MUSTHAFA	BBA
29	211FK01096	SHAIK SAMADH	BBA
30	211FK01102	TALLA GOKUL KRISHNA	BBA



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Environmental conservation**

Date:29.02.2024

Venue: ZPHS Narakoduru

We, the team UEAC, conducted an “Environmental conservation” event on 29 February 2024. The event aims to address pressing environmental issues and promote sustainable practices, raise awareness, foster collaboration, and inspire action towards protecting and preserving the environment for future generations.

30 members including the chief organizers and chief coordinators took part in this event. This event began with an opening ceremony, during which distinguished speakers emphasized the urgency of environmental conservation. Participants actively participated in breakout sessions focused on practical strategies for reducing environmental footprint and promoting eco-friendly practices in various sectors, including agriculture, industry, transportation, and urban development. Discussions facilitated dialogue among stakeholders, encouraging knowledge-sharing and collaboration towards common environmental goals.

Our UEAC team members including chief organizers, chief coordinators, section coordinators and volunteers gathered in college. The event started at 2:00 PM and was completed at 4:00 PM.



Awareness on Environmental Conservation on 29.02.2024

List of Volunteers:

Awareness on Environmental Conservation on 29.02.2024			
S. No	Reg. No	Name	Branch
1	221FK01010	BHARATH ABHINAY DODDA	BBA
2	221FK01017	CHATTU SATVIK	BBA
3	221FK01023	DASARI SRI PRANATHI	BBA

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**University Extension Activity Council (UEAC)
Annual Report – 2023-24**

4	221FK01026	EANUGULA YASWANTH	BBA
5	221FK01036	JAKKU VENKATA VIJAY REDDY	BBA
6	221FK01043	KURRI ASRITH REDDY	BBA
7	221FK01049	MOHAMMAD FARJANA	BBA
8	221FK01053	NALLABOTULA SOUMYA	BBA
9	221FK01057	PANCHARIYA BHAVESH	BBA
10	221FK01060	PERAM VENKATA SAI SAMPATH	BBA
11	221FK01064	PULI BHAVYA SREE	BBA
12	221FK01071	SHAIK ABDUL GAFFAR	BBA
13	221FK01077	SHIVAM KUMAR	BBA
14	221FK01083	VIRAJ SHARMA	BBA
15	221FK01088	POLISETTY S H N MANIKANTA	BBA
16	221FK01095	LAGHUMAVARAPU SIVA NAGA MANI SWETHA	BBA
17	221FK01101	SADINENI RADHIKA	BBA
18	221FK01103	RATHAMSHETTY BHUVANESHWAR	BBA
19	221FK01107	GALIZERUGULA BHANU TEJA	BBA
20	211FK01045	KOTA PRIYANKA	BBA
21	211FK01050	MALLADI SAI ANVITHA	BBA
22	211FK01059	MUKKAMALLA KARTHIK REDDY	BBA
23	211FK01064	NARSING KEERTHI PRIYANKA	BBA
24	211FK01071	PONNAPATI AKESH REDDY	BBA
25	211FK01078	RAVINUTHALA JOSEPH SUNEETH	BBA
26	211FK01083	SHAIK KHURSHID	BBA
27	211FK01087	SHAIK CHEJARLA JANNATH HUSSAIN	BBA
28	211FK01092	SHAIK MOHAMMAD MUSTHAF A	BBA
29	211FK01096	SHAIK SAMADH	BBA
30	211FK01102	TALLA GOKUL KRISHNA	BBA



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
VOTER AWARENESS**

Date: 15.03.2024

Village: Selapadu, Vadlamudi, Vejandla and Chebrolu

We, the team UEAC, conducted a "voter awareness" event on 15 March 2024. The main aim of conducting a voter awareness event is to educate and inform citizens about the importance of voting and participating in the democratic process.

Team UEAC organized the voter awareness event. 85 Students from various departments took part in this event. They went to different adopted villages like Selapadu, Vejandala, Vaddlamudi and Chebrolu to motivate people about the importance of voting. This event encourages active participation in elections and also empowers citizens and promotes responsibility among them, emphasizing the role of each individual in shaping the future of their community.

Our UEAC team members including chief organizers, chief coordinators, section coordinators and volunteers gathered in college. The volunteers have split into groups, according to their disciplines of the branches, and each group has contributed their efforts to bring awareness among people. The event started at 2:00 PM and was completed at 4:00 PM.



Vote Awareness on 15.03.2024

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Annual Report – 2023-24**

List of Volunteers:

Vote Awareness on 15.03.2024			
S. No	Reg. No	Name	Branch
1	231FA05276	ANNAM BHAVISHYA PRIYA	ECE
2	221FA01084	RAVIPATI SAI VYSHNAVI	BIOTECH
3	231FA04D87	ANGALAKUDURU NAVYA MANI SRI	CSE
4	231FA18392	SOMAVARAPU NAGARJUNA	AIANDML
5	211FW01080	MUCHU JAYANTHI	BSC HONS
6	231FA05203	KESABOYINA CHANDRA SURESH PAVAN KUMAR	ECE
7	221FA14002	MUTHOJU SRIRAM	BI
8	231FC01060	OGGU SOWMYA VENKATA SOWJANYA LAKSHMI	MBA
9	231FD01028	KONDURI SRINIVASARAO	MCA
10	221FA04610	ALLA DEEPTHI	CSE
11	221FA18110	ANDALURI HEMA VENKATA NAGESWARI	AIANDML
12	211FA18021	MUDDA KAPIL RAJ	AIANDML
13	201FA05033	SAKIRI MOHAN CHANDRA BALA NAIDU	ECE
14	221FA18118	MUKESH LAKSHMI SAI MEDIKONDA	AIANDML
15	231FA05137	AKKAPEDDI SRI NIVEDITHA	ECE
16	211FA05138	DADI VARDHAN	ECE
17	231FA18252	VARIKUTI DHARANEESWAR	AIANDML
18	221FA07106	VULLAMGUNTA LOKESH KUMAR	IT
19	211FA19057	YEPURI MANIKANTA	CSECS
20	231FD01066	THATAVARTHI KAVYA SRI	MCA
21	221FA18177	MADDI KEERTHI PRANEETHA	AIANDML
22	211FA04669	VIKASH RANJAN	CSE
23	231LA06009	SHAIK MOHAMMAD FAROOQ	EEE
24	231FA07077	BANDLA VARSHINI	IT
25	221FA19049	GANTA SUNDEEP	CSECS
26	231FA08012	VEMULAMADA NAGA SRINIVAS	MECH
27	211FA01006	MINUMANURI KOTLO JYOTSHNA	BIOTECH
28	231FC01116	SHAIK NAGURBASHA	MBA
29	211LA12009	V RACHANA	AG
30	201FA14030	GADI ADITYA VARMA	BI
31	231FW01044	NAGARAJU HEMANTH VARAMA	BSC HONS

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32	211FK01039	KANDURI Y V SAI ESWAR KUMAR	BBA
33	211FA14068	ATMAKURI VENKATA MONIKA SARVANI	BI
34	231FA04435	UPPALAPATI LAKSHMI DURGA	CSE
35	221FK01062	PISAPATI SATYA KUMAR	BBA
36	231FA04482	TALLURI AKASH	CSE
37	231FM01001	MANAPATI KOWSHIK	BSC
38	211FA18128	PARAMATA SWAROOP NANDA	AIANDML
39	221FA04168	DAMARLA GAGANA DEEPIKA	CSE
40	231FJ01061	INUPAGOLLA GAYATRI	BCA
41	231FA19053	YEDULA SUBRAHMANYESWARA	CSECS
42	231FA04289	ARIKATLA YASWANTH REDDY	CSE
43	221FA05003	UPPALA NEHA TULASI	ECE
44	201FA04374	ICHAPURAM S HEMANTH	CSE
45	221FA05150	RAMISETTY GANESH KARTHIK	ECE
46	231FA04E55	KOLLI SAI CHANDANA	CSE
47	221FJ01055	PASUPULETI IMANIUEL DEVA PAUL	BCA
48	231FA04741	ASODI DEVAKI REDDY	CSE
49	231FJ01071	PRIYANSHU RAJ	BCA
50	231FA04966	JONNALAGADDA DEVENDRA	CSE
51	231FA04950	DAGGUPATI GOWTHAM SAI	CSE
52	201FA15074	CHINTA JYOTHI JAYAWARDHAN	FT
53	221FA05143	MATTAPARTHI VENKATESH	ECE
54	211FA04626	RAM KRIPAL GAURAV	CSE
55	201FA01063	DUVVURU PRAGNA REDDY	BIOTECH
56	201FA18009	SANAGALA BHAVANA	AIANDML
57	211FA05289	NEELAM PHANEENDRA SAI	ECE
58	231FA04B95	SHAIK MUZEEF	CSE
59	231FA23027	MALLINA SUSMITHA	DS
60	231FA16038	KAPULAPALLI LAKSHMI ASRITHA REDDY	BM
61	201FA01027	KANUGOLU HEMANTH KUMAR	BIOTECH
62	201FA04202	CHITTURI YESWANTH	CSE
63	211FK01045	KOTA PRIYANKA	BBA
64	231FA04106	KANAMARLAPUDI SURYA CHANDRA GUPTHA	CSE
65	221FA07024	BAPATHU SRIRAM REDDY	IT
66	211LA08008	KONDA HARSHANTH	MECH
67	231FA04878	KASSETTY LOHITH KUMAR	CSE
68	231FA14129	GUDA MAHESH REDDY	BI

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69	231FA05238	KANAMARLAPUDI SRIDHAR ANANTH KUMAR	ECE
70	231FM01007	DOKKU JAHNAVI	BSC
71	231FA01044	ELETI BENSON	BIOTECH
72	201FA04160	MADDIREDDY VENKATA SESA SAI SRIJA	CSE
73	211FA18015	SEELAM RUCHITHA MAHI	AIANDML
74	231FA01098	GURAJALA YASWITHA	BIOTECH
75	231FA04898	SHAIK SAMEER	CSE
76	231FA04722	VENPA VASANTHI	CSE
77	211FA05301	BHOGIREDDY LAKSHMI MANI TEJA	ECE
78	221FA04040	MUPPALLA BHAVYA SRI	CSE
79	231FA07113	APPIDI SAI KUMAR REDDY	IT
80	231FA23021	KATURI BHARGAVI	DS
81	221LA12014	VADDE MOUNIKA	AG
82	231FA05065	GUDUDUR SATHWIK	ECE
83	231FA04034	GOTTAM MASTHAN RAO	CSE
84	221LA03009	DANTHALA ANAND PAL	CIVIL
85	221FC01125	CHANDOLU MANIDEEP	MBA



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
HEALTH AWARENESS SESSION**

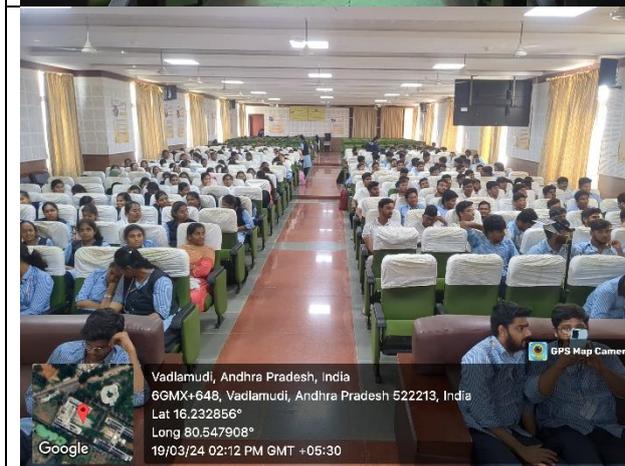
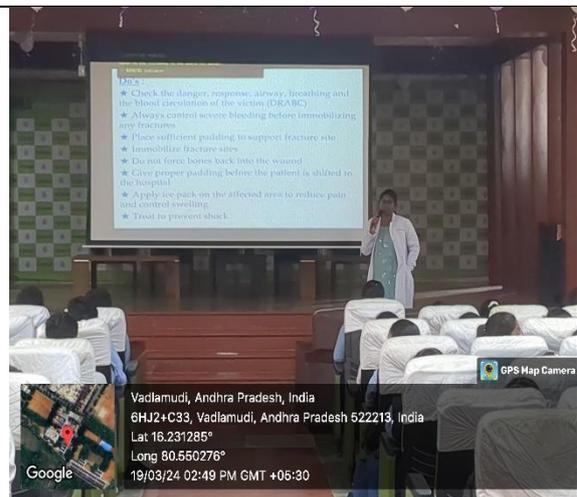
Date: 19.03.2024

Venue: Vignan university

“The greatest wealth is health”. With the same motto, we the team UEAC have organized a health awareness talk in collaboration with Doctors from Vignan’s Health Centre in the Sangamam seminar hall on 19th March, 2024. The program was initiated with the opening remarks of Sankeerthan, he emphasized the importance of awareness on first aid, the topic of the day.

The event was started by 2:00 PM with the presence of all the core team, vertical leads, vertical members, section coordinators and volunteers. This includes 53 members from different departments. UEAC Programming Officer, Dr P Vijayababu Palukuri who shared valuable insights about health and its importance, further continued it. Dr Rakesh and Dr Vaishnavi from Vignan Health Centre have educated the students on First Aid, Basic Life support and precautions that are to be taken during any emergency.

Our UEAC team members made this event a great success. The speakers were informative and engaging, and the students were enthusiastic and participative. We would like to thank everyone who made the event possible, including the speakers, volunteers, and students. We look forward to hosting similar events in the future.



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BANK**University Extension Activity Council (UEAC)
Annual Report – 2023-24****List of Volunteers:**

HEALTH AWARENESS SESSION on 19.03.2024			
S. No	Reg. No	Name of the Student	Branch
1	231FA04742	THOTA NAGA VEERA PRASANNA	CSE
2	231FA06037	MAFAITI LESTENCIA	EEE
3	231FA04A69	CHEGONDI NAVYA	CSE
4	211FA04408	ALAVALA KARUNAKAR REDDY	CSE
5	211FA08031	GAJULA VENKAT	MECH
6	221FW01021	MUNNANGI THANU SRI	BSC HONS
7	211FA05141	JAMPANI GNANA VENKATA GOPI KRISHNA	ECE
8	221FC01063	SHAIK MOHAMMAD SHAIDA	MBA
9	211FA05245	GRANDHI SRAVYA SREE	ECE
10	221FA21004	MEESALA PRATHYUSHA	RA
11	201FA05104	MADATALA TEJA REDDY	ECE
12	231FA05266	DUNDI HARI VARDHAN REDDY	ECE
13	211FK01078	RAVINUTHALA JOSEPH SUNEETH	BBA
14	231FA04218	GANGINENI SUKANYA	CSE
15	211FA18072	ALLA NITHIN REDDY	AIANDML
16	231FA04G85	SWARNA MAHALAKSHMI	CSE
17	201FA04310	MADALA PRASANNA KUMAR	CSE
18	201FA14021	MUPPANENI DEEPTHI KUMARI	BI
19	211FA05062	KOGANTI SRAVYA	ECE
20	231FA04606	SUNKARI CHARLES PAUL	CSE
21	201FA04066	NUTHI VENKATA UDAY CHAND	CSE
22	221FA14055	VELAMPALLI JAYA VYSHNAVI	BI
23	231FA19010	METTA CHARITHA CHOWDARY	CSECS
24	211FK01010	BUDDEPU DINESH KUMMAR	BBA
25	211FA04414	DEEPAK KUMAR	CSE
26	221FW01026	BEERALA SIVA RANGA MOHITH	BSC HONS
27	221FA18063	BATHINENI SUJITHA	AIANDML
28	231FA04A36	YAKKATEELA MADHU VEERA SANKAR	CSE
29	231FA04687	MATHI SIVA SUBRAHMANYAM	CSE
30	211FA01028	MANDALAPU LIKITHA	BIOTECH
31	231FA01014	RAYAPROLU B M SAKUNTALA	BIOTECH
32	221FA01005	PRINCE KUMAR	BIOTECH
33	231FA07006	CHALUVADI UDAYA SRI	IT
34	231FA04470	BADISA SRIKANTH	CSE
35	221FA18172	RAVIKRINDI DARWIN HAREESH	AIANDML
36	231FA04C59	BRAJESH KUMAR	CSE
37	221FW01045	KONDURU KRUPA	BSC HONS

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38	211FA05024	ASA BHARGAVA LAKSHMI NARASIMHA	ECE
39	231FA04279	K ESHWAR	CSE
40	231FA05089	BAIRINENI SHASHI MADHAVI	ECE
41	231FA04922	KUNTAMUKKALA UMESH CHOWDARY	CSE
42	201FA01059	KAKANI SAI PRAVALLIKA	BIOTECH
43	231FA04B31	BORRA SIVA KRISHNA	CSE
44	221FA04018	BILLA VAISHNAVI	CSE
45	211FA04452	UNDAVALLI PRIYANKA	CSE
46	231FW01042	MD SOHAIL KHAN	BSC HONS
47	221LA05015	KODALI HIMAJA SRI	ECE
48	221FA04273	BANDI LAKSHMI AJAY KUMAR REDDY	CSE
49	211FJ01029	GORANTLA SUJANA	BCA
50	211FA06035	MANDAGIRI NAVEEN VINAY	EEE
51	231FA04E78	NEELAM PAVAN TEJA	CSE
52	231FA04E45	PARISA GANGOTRI	CSE
53	201FA05066	MOHAMMAD IBRAHIM	ECE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Usage of Childcare Apps**

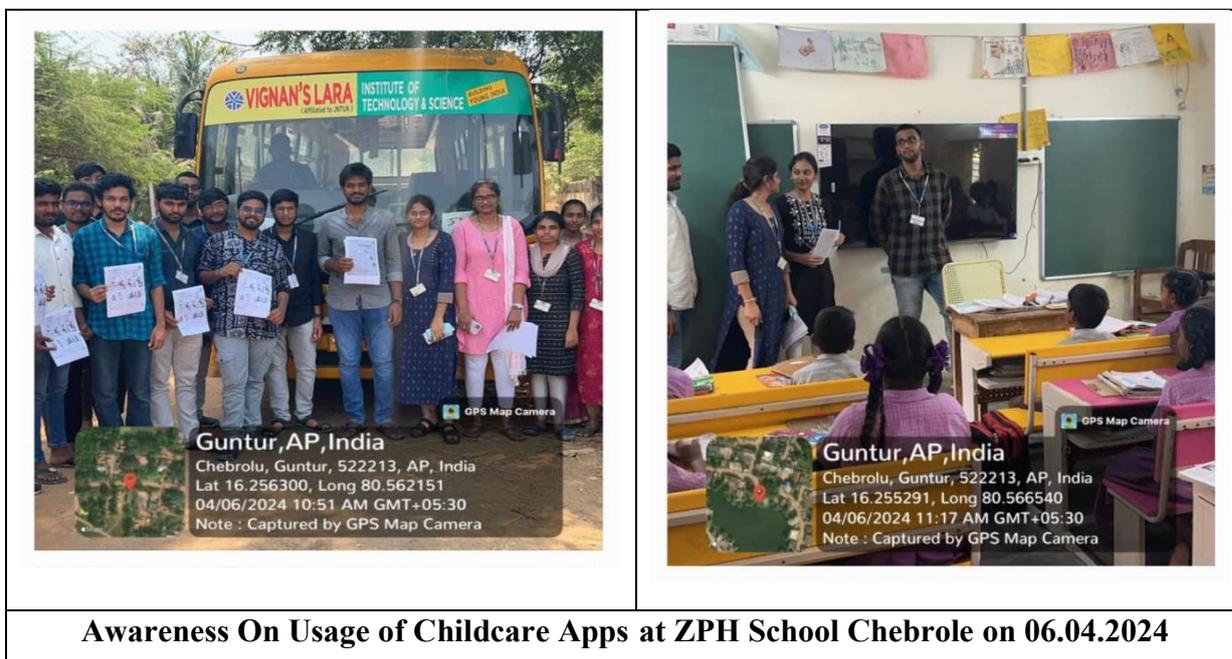
Date:06.04.2024

Venue: ZPH School Chebrole

We the team UEAC have conducted an event on 6 th April, 2024 to bring awareness on the usage of childcare apps in ZPH School Chebrole Village. The main aim of this event is to educate people about childcare apps.

Our team UEAC members from CSE department organized this event. This event is about “The usage of childcare apps”. They have informed parental control measures like Using a parental controls app, manually checking your child’s web history, setting up a password-sharing policy, enabling family safety features in gaming consoles, set up social media monitoring tools. They have explained some applications that help you to monitor your child's activity on mobile, iPad, Computer Google Family Link, Air Droid Parental Control, Parental Control App –Mobicip, Kids360: Parental Control Apps, Parental Control App –FamiSafe

The program commenced an assembly of 30 NSS volunteers and members along with the organizers at 09:45 AM. They were divided into groups and they started in the college by 10:00 AM. They reached the village by 10:15 AM. Each group addressed the people and they returned to college by 12:30 PM.



Awareness On Usage of Childcare Apps at ZPH School Chebrole on 06.04.2024

List of Volunteers:

Awareness On Usage Of Childcare Apps at Selapadu on 06.04.2024			
S.NO	REG NO:	NAME	Branch
1	211FA04425	D.NAVYA	CSE
2	211FA04390	YOGESWAR	CSE
3	211FA04287	BALA BASKAR	CSE
4	211FA04698	AMRUTHA	CSE

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**University Extension Activity Council (UEAC)
Annual Report – 2023-24**

5	211FA04330	KEERHI	CSE
6	211FA04295	KAVYA	CSE
7	211FA04127	BHAVANI CHANDRA	CSE
8	211FA04107	SAI THANUJ	CSE
9	211FA04128	YASWANTH	CSE
10	211FA04610	MAHALAKSHMI	CSE
11	211FA04503	SRIDEVI	CSE
12	211FA04562	ABHIRAM	CSE
13	211FA04476	BALA VAMSI	CSE
14	211FA04478	NAVYA	CSE
15	211FA04508	SANKEERTHAN	CSE
16	211FA04559	ANUHYA	CSE
17	211FA04552	SIRI VIGNA	CSE
18	211FA04387	HARA GOPAL	CSE
19	211FA04326	RAJEEV	CSE
20	211FA04395	KOTTI REDDY	CSE
21	211FA04505	MADHURI	CSE
22	211FA04367	MANVITHA	CSE
23	211FA04388	LASYA	CSE
24	211FA04393	NAVYA SRI	CSE
25	211FA04511	BHAVAM	CSE
26	221FA04041	PAGADALA BHAGYA SRI	CSE
27	221FA04046	SAI BHARGAV REDDY KATASANI	CSE
28	221FA04052	TALLA KOUSHIK	CSE
29	221FA04059	NALLAMEKALA KALYAN RAM	CSE
30	221FA04067	GUNTUPALLI PRANAV	CSE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
BAD EFFECTS OF SMART PHONE**

Date:06.04.2024

Venue: Selapadu

We the team UEAC have conducted an event on 6th April, 2024 to bring awareness on the effects of smartphones among children. This event took place in Selapadu village. The main aim of this event is to educate people and children about the effects of mobile phones at younger ages.

Our team UEAC members from the CSE department organized this event. This event motivates people and children to decrease the usage of mobiles. They have explained to them the health problems that occur from excessive usage of mobiles at a young age such as Causing Tumors, Affects Brain Activity, Lowers Academic Performance, Access to Inappropriate Media, Sleep Disruption, Mental Health Troubles, and Decreased Social Skills. They have motivated children to be away from smartphones which helps them to increase their social skills. They have informed parental control measures like Using a parental controls app, manually checking your child's web history, setting up a password-sharing policy, enabling family safety features in gaming consoles, set up social media monitoring tools. A total of 30 students were involved in the event.



Bad effects of Smart phone at Selapadu on 06.04.2024

List of Volunteers:

Bad effects of Smart phone at Selapadu on 06.04.2024			
S.NO	REG NO:	NAME	Branch
1	211FA04425	D.NAVYA	CSE
2	211FA04390	YOGESWAR	CSE
3	211FA04287	BALA BASKAR	CSE
4	211FA04698	AMRUTHA	CSE
5	211FA04330	KEERHI	CSE
6	211FA04295	KAVYA	CSE

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7	211FA04127	BHAVANI CHANDRA	CSE
8	211FA04107	SAI THANUJ	CSE
9	211FA04128	YASWANTH	CSE
10	211FA04610	MAHALAKSHMI	CSE
11	211FA04503	SRIDEVI	CSE
12	211FA04562	ABHIRAM	CSE
13	211FA04476	BALA VAMSI	CSE
14	211FA04478	NAVYA	CSE
15	211FA04508	SANKEERTHAN	CSE
16	211FA04559	ANUHYA	CSE
17	211FA04552	SIRI VIGNA	CSE
18	211FA04387	HARA GOPAL	CSE
19	211FA04326	RAJEEV	CSE
20	211FA04395	KOTTI REDDY	CSE
21	211FA04505	MADHURI	CSE
22	211FA04367	MANVITHA	CSE
23	211FA04388	LASYA	CSE
24	211FA04393	NAVYA SRI	CSE
25	211FA04511	BHAVAM	CSE
26	221FA04041	PAGADALA BHAGYA SRI	CSE
27	221FA04046	SAI BHARGAV REDDY KATASANI	CSE
28	221FA04052	TALLA KOUSHIK	CSE
29	221FA04059	NALLAMEKALA KALYAN RAM	CSE
30	221FA04067	GUNTUPALLI PRANAV	CSE



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University Extension Activity Council (UEAC) Annual Report – 2023-24 Swatch Vignan

Date: 22.04.2024

Venue: Vignan University

The event “Swatch Vignan” was conducted to bring awareness on cleanliness and hygiene maintenance of surroundings by the Team UEAC of Vignan University on 22nd April 2024.

Every week this program is organized to educate students on social responsibility. The event was held in H-Block at 2 o'clock. A total of 412 members participated in this event. That includes all the 1st year section coordinators, vertical leads and core members. The objective of cleanliness is to get rid of all non-biodegradable wastes like plastic covers, plastic bottles, plastic straws, fibers etc. which lead to health issues and to ensure clean university premises.

The Program commences an assembly of NSS (Volunteers and coordinators) and at 1:45 PM the dividing of groups is finished and each branch has contributed their efforts to make the University clean. By the time of 3:30 PM, all were gathered at the H-Block OAT for a small interaction with the NSS core team and an appreciation for the accomplishment of the event. Finally, everyone had dispersed to their respective classes with a thank you note.



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University Extension Activity Council (UEAC) Annual Report – 2023-24



Conducting Swatch Vignan Programme on 22.04.2024

List of volunteers:

SWATCH VIGNAN on 22.04.2024			
S. No	Reg. No	Name of the Student	Branch
1	211FM01058	ENDLA DIVAKAR REDDY	BSC
2	211FA04440	NERELLA GEETHA SREE	CSE
3	201FA01075	KASARLA NARSI REDDY	BIOTECH
4	211FA06003	KODURU HARIKA NAGA LAKSHMI PRIYA	EEE
5	221FA04493	VUYURU HEMANTH	CSE
6	231FA04561	VASIREDDY AKSHITA NEHA	CSE
7	211FM01012	GUDAPATI MOUNIKA LAKSHMI DURGA	BSC
8	211LA05044	VEMULAPALLI JEEVANA	ECE
9	231FA04F18	KOPPARAPU LAKSHMI PAVANI	CSE
10	211FA04120	MANDALA ABHISHEK	CSE
11	231FA01002	MANCHIKALAPUDI PRANEETHA CHOWDARY	BIOTECH
12	221FA05079	PANIDAPU VARUN KANTH	ECE
13	231FA05122	BANDARU NAGA SREEKAR	ECE
14	231FA04455	THUMMA YUVA KIRAN REDDY	CSE
15	221FA19013	SUGGUNA RAMYA SRI	CSECS
16	231FJ01048	SHAIK SONI	BCA
17	211FA15022	P.S.V.N.SRINIVAS	FT
18	231FA14112	MOHAMMED FATHIMA KHAN	BI
19	221FA04087	YARRAMSETTY MANOJ	CSE
20	211FA04469	SHIVAM AGARWAL	CSE
21	231FA16046	JAMM MAYIIK MICCHAR DENG	BM
22	231FA04974	GUNTI SOMANADH	CSE
23	231FA16041	KUDULLA BHAGYA SRI	BM
24	231FA04A84	MAKINENI BALA BHOOMIKA	CSE

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25	201FK01051	GOLLA VENU	BBA
26	231FC01105	GODAVARTHI V NAGA LAKSHMI SUBHANJALI	MBA
27	221FA04632	KANNA KAVYA NANDINI	CSE
28	231FA04744	GADUPUDI BHAVYA SRI	CSE
29	231FA04281	BHIMAVARAPU KAVYA REDDY	CSE
30	211FA05289	NEELAM PHANEENDRA SAI	ECE
31	231LA06033	MANNEM BALA ANIL KUMAR	EEE
32	231FA19064	JAHNAVI KAMEPALLI	CSECS
33	221FW01163	DHARMIREDDI TEJASRI	BSC HONS
34	231FA14106	BARAMA NAGA PRAGATHI	BI
35	221FA04118	SHIVAM KUMAR	CSE
36	201FA05093	DANTLA SUDHAKAR REDDY	ECE
37	231FC01037	MORLA MAHESH	MBA
38	211FA06010	VEMULA CHARAN	EEE
39	201FA04175	VEERLA LAKSHMI NEEHARIKA	CSE
40	211FA19009	GOGADA JYOTHI SUBRAHMANYAM SAI	CSECS
41	201FA04020	MANJEERA BOLISSETTY	CSE
42	211FA20013	RAJAVARAPU SHIVA TEJA	CSBS
43	221FA04282	TADIKONDA BHAGAT SAI	CSE
44	231FA07151	KANCHARLA SUMEERA	IT
45	201FA19006	BADE RISHIKA	CSECS
46	231FA04433	AKKALA HEMANTH REDDY	CSE
47	231FA04270	CHALICHAM DEEPAK CHOWDARY	CSE
48	211FA05073	RENTAPALLA BALAMURALI KRISHNA	ECE
49	231FA05067	KOLLIPARA RISHITHA	ECE
50	221FA23016	MANGAMURI SASANK	DS
51	201FA04443	JANGALAPALLI HAMSINI	CSE
52	231FC01009	SHAIK ABDUL AYA AZ	MBA
53	231FA14018	YERUVA NEEHA MOHAN REDDY	BI
54	231FC01157	GATTU MESSY ROYAL	MBA
55	231FA04426	PERAM SWAPNA SINDHU	CSE
56	231FW01050	PORANKI DHYAN SAI SRI	BSC HONS
57	221FA07024	BAPATHU SRIRAM REDDY	IT
58	231FA05251	SHAIK FAYAZ	ECE
59	231FA04875	VEMIREDDY KEERTHI	CSE
60	211FK01145	SAKALABATHULA MONALISA	BBA
61	221FA05221	MONDITHOKA SOWMYA	ECE
62	201FA15080	GOPALAPPAGARI UDAY	FT
63	211FK01045	KOTA PRIYANKA	BBA

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64	231FA04162	JUJJURI DIVYA	CSE
65	231FA04B50	KOLLURU VEDA SRI SURYA SASANK	CSE
66	231FA04415	KUKATLA SRAVANI	CSE
67	211FA04463	DHULIPUDI VENKATA KARTHIK	CSE
68	231FA14011	GUDAPATI GNANA AASRITHA	BI
69	231FA04672	PATHURI SAICHANDH	CSE
70	231FA04993	TADIKAMALLA VASAVI LAKSHMI SREE	CSE
71	231LA06005	MOHAMMAD ARSHAK	EEE
72	221FW01171	DEV SHANKAR THAKUR	BSC HONS
73	201FA01063	DUVVURU PRAGNA REDDY	BIOTECH
74	231FA05223	SOMAROUTHU D APARNA	ECE
75	221FA18031	KASINDALA CHARAN CHOWDARY	AIANDML
76	231FA04001	SANKEPELLI SAMEERA	CSE
77	211FK01047	LAKKI REDDY AJAY KARTHIK REDDY	BBA
78	231FC01102	MUSKAN KUMARI JAISWAL	MBA
79	201FA17006	MOHAMMAD FAIZAN RAZA	PE
80	211FA14040	VELLANKI RAGHU RAM	BI
81	231FC01145	TAMMA VINAY KUMAR REDDY	MBA
82	211FA08006	BODDU HARSHA VARDHAN	MECH
83	211FA19026	GURIVINDAPALL BHANU PRAKASH	CSECS
84	231FA04756	SAKALABHAKTULA KOUSHIK	CSE
85	231FA18062	PRAGADA KUMAR	AIANDML
86	211FA15019	PRANATHI CHANDRIKA PANCHAKARLA	FT
87	231FA16038	KAPULAPALLI LAKSHMI ASRITHA REDDY	BM
88	231FA07122	CHEERABOINA LAKSHMI THIRUPATHAMMA	IT
89	211FK01090	SHAIK KHAJA MOINUDDIN	BBA
90	221FW01094	NOOTHI GAYATHRI PRIYA	BSC HONS
91	231FA04C10	BOBBELLA GANESH	CSE
92	221FA23005	GEETHA M	DS
93	221FA04342	P D S V KARTHIKEYA	CSE
94	221FA06033	RAJNIKANT KUMAR	EEE
95	231FA04733	VELPULA BHAGYALAKSHMI	CSE
96	231FD01074	LUKKA VENKATA SRI RAM	MCA
97	201FA04213	AVULA HARIKA	CSE
98	201FA04326	INDALA JYOTHIRMAYEE	CSE
99	221FA01010	MALLADI PRAVALLIKA	BIOTECH
100	231FA04693	GADIREDDY SRI SRESHTA	CSE
101	201FA04403	PRABHAT KUMAR	CSE

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102	221FA04725	ADITYA KUMAR	CSE
103	221FC01133	AADURI PAVAN NAGA VENKATA SEKHAR	MBA
104	211FK01115	YEPURI VIJITHA	BBA
105	221FA07032	ALLU MAHESH POTHAN	IT
106	211FA18053	MUPPALLA SOWMYA	AIANDML
107	221FA01017	VELAGA LIKHITHA GAYATHRI	BIOTECH
108	201FA04202	CHITTURI YESWANTH	CSE
109	221FA04689	SHAIK ARSHADRABBANI	CSE
110	221FA06019	MUNNANGI VARSHITHA	EEE
111	231FA04132	PARABATHINA RAHUL BABU	CSE
112	231FA07027	DASARI VENKATA SRIKANTH	IT
113	211LA06017	CHIMAKURTHI THULASI MAHA LAKSHMI	EEE
114	231FA18431	DARAM SRINIVASA REDDY	AIANDML
115	221FA18052	SANDHU BHARAT SAI	AIANDML
116	221FK01088	POLISSETTY S H N MANIKANTA	BBA
117	221FA01063	NADIKATTU SUCHITA SHARON	BIOTECH
118	231FA04620	NAVULURI VEDA SREE	CSE
119	221FA04227	AYINAPARTHI PURNA PRABHA ROHINI	CSE
120	231FA07113	APPIDI SAI KUMAR REDDY	IT
121	211FA04080	BURRI SAHITHI	CSE
122	221FA07020	JONNADULA DIVYA SRI	IT
123	221FA04537	MUPPALLA LASYA	CSE
124	201FA04456	REDDY RAJESWARI	CSE
125	221FA14035	GRANDHI MINUSHA KOWSALYA	BI
126	211FA07075	DIRISINALA NAGA VARDHINI	IT
127	221FA04430	YELLA SAI KRISHNA	CSE
128	221FA14043	DUDEKULA SAFIYA	BI
129	231FW01024	JAMMULA AMRUTHA SOWDHAMINI	BSC HONS
130	221FA05143	MATTAPARTHI VENKATESH	ECE
131	231FA18402	TAVITI JWALA NARASIMHA	AIANDML
132	221FA16036	MODALAVALASA HEMSUNDAR SAIRAM	BM
133	211FW01020	EMULA BAJI BABU	BSC HONS
134	201FA04266	GOGIREDDY SAISRUTHI	CSE
135	231FA04288	TIRUKKOVALLURI MONALISA	CSE
136	221FW01130	PODILI SRI SAI GOPI KRISHNA	BSC HONS
137	231FA04B40	PALEPU M N V SAI RANGA PRABHA	CSE
138	231FA04793	MOGILI GOPI CHAND	CSE
139	221FA18080	KAKUMANU VENKATA LAKSHMI ANJALI TEJASWI	AIANDML

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140	201FA01120	MALLEMKONDU VENKATA SAI SUMA SRI	BIOTECH
141	201FA01030	MIRIYALA SAHITHI SREE	BIOTECH
142	231FA04F28	PAMIDI PRADEEP MANIKANTA	CSE
143	221FW01017	KAJA SREE GAYATHRI	BSC HONS
144	201FA16030	TENALI JASWANTH	BM
145	231FM01002	KURRA HARSHA VARDHAN	BSC
146	201FA04274	POLU VIJAY SHEKAR REDDY	CSE
147	231FA05229	POOLA GIRISH NAIDU	ECE
148	231FA04487	KOLLIPARA BHUVANA VENKATA LAKSHMI ANUJA	CSE
149	221FA05156	K V M S LEELA KRISHNA	ECE
150	221LA08009	TADIBOYINA SAI BHARATH	MECH
151	211FA05298	MEDI RAGHU	ECE
152	221FA19048	KAMINENI LEELA TAPASWI	CSECS
153	211FJ01023	DEVARAPALLI SATHYA PRAKASH	BCA
154	211FM01033	SANAM PRAVALLIKA	BSC
155	221FA18131	GURRALA RAGHU VARDHAN	AIANDML
156	201FA04031	SANAKA SHANMUKA SRI HARSHA	CSE
157	211FA05157	KOMMINENI NAGA SRI LAKSHMI	ECE
158	221FA07038	GODAVARTHI SASI NAGA VENKATA PADMA VASAVI	IT
159	231FA04A71	DUNDI SAINADH REDDY	CSE
160	231LA03003	PAYYAVULA SIVA SANKAR	CIVIL
161	211FA18010	JULURI SHIVA SAI	AIANDML
162	221FA05225	CHERUKUMALLI SAI RAM	ECE
163	211FA06014	BACHHANABOINA SAI PUJITHA	EEE
164	211FA04475	ANUSHKA	CSE
165	211FA07095	GUDIPATI VINITA	IT
166	211LA12003	GOBBURI LOKESWARI	AG
167	231FA14117	SHAIK TAYYABA TASNEEM	BI
168	221FA04006	NARALASETTI BALA SAI	CSE
169	211FA05222	PINNAKA CHAITANYA LAKSHMI	ECE
170	231FA04970	PENUGONDA SREEKARA VENAKATANAGADURGASAIUDAY	CSE
171	221FA18167	NUTHI GEETHANJALI	AIANDML
172	231FA04775	YARAGALLA SUNANDA	CSE
173	211FA08007	BATTULA KALYAN RAM	MECH
174	221FA05015	GAVINI LAVANYA	ECE
175	231FC01066	NALLAPATY GOPI NADH	MBA
176	221LA16003	SHAIK ABDUL RAMEEZ	BM
177	231FA04878	KASSETTY LOHITH KUMAR	CSE

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178	211FA14007	CHINTAM PUNVITH REDDY	BI
179	211FA06033	SUDA MARUTHI GOPI CHAND	EEE
180	221FA14065	RAYIDI SRI SAI CHINMAI	BI
181	231FA03013	CHIKWIRI GEORGE TAFARA	CIVIL
182	231FA04034	GOTTAM MASTHAN RAO	CSE
183	211FA06036	CHATTI GURU SAI KUMAR	EEE
184	221FA04687	BALUSU DIVYA SNEHITHA	CSE
185	231FA04382	VUYYURU PAVANA BINDU	CSE
186	231FA04339	UDDANDA CHAKRAVARTHI	CSE
187	231FA04713	THIGURI NAGA MOHAN REDDY	CSE
188	201FA15033	KAMBHAMPATI LIKHITHA	FT
189	221FA04494	KOTHAPALLI VENKATA SAI SANDEEP	CSE
190	221FA19038	BAPANAPALLI ROHAN TEJA	CSECS
191	201FA05076	DONTHINENI SIVA KRISHNA	ECE
192	221FJ01076	VADDINENI SAI PRAKHYA	BCA
193	231FA19032	PARACHALLA SUSMITHA	CSECS
194	211FA07072	GADE GOWTHAM SAI	IT
195	231FA04D54	KATTIKA KARTHIK VARMA	CSE
196	231FA04B35	TELLA VISHNU PRIYA	CSE
197	201FA04334	KONDRAGUNTA NEHA	CSE
198	231FA04077	SAI SREEJA GUJJIDI	CSE
199	211LA06015	PATHAN MOHAMMED KHAN	EEE
200	221FJ01010	BAPATLA SOMESWAR	BCA
201	231FK01035	SHAIK ABUZAR	BBA
202	211FA04049	JAMIGUMPULA MANIKANTA	CSE
203	231FA16037	PUDUCHERI PADMA SRI	BM
204	211FA19031	DEVARPALLI TEJASWI	CSECS
205	231FA04283	VARRA AVANTHIKA REDDY	CSE
206	221FA05160	MANTRAPUDI NIKHILA	ECE
207	211FA04077	JONNALAGADDA M V LAKSHMI HARSHITHA	CSE
208	231FW01091	CHIRADZA EMMANUEL ELIAS	BSC HONS
209	231FA04722	VEMPA VASANTHI	CSE
210	221FA05203	GOGIREDDY RAMI REDDY	ECE
211	221FA04451	PRINCE KUMAR	CSE
212	231FA04532	SURAPUREDDY MEGHANA REDDY	CSE
213	231FA04C12	JASTHI PAVITHRA	CSE
214	231FA14033	MIDABALA SRINIVAS	BI
215	231FA04263	DANTHULURI LOKESH BABU	CSE

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216	201FA01080	JAMMOJU VEERA VENKATA RAGHAVENDRA DHANUSH	BIOTECH
217	221LA12014	VADDE MOUNIKA	AG
218	221FA01102	VADLAMANNATI AKSHAYA	BIOTECH
219	231FA04274	GRANDHE THANUJA	CSE
220	211FW01007	KOTIKALAPUDI SUHAS PAUL	BSC HONS
221	231LA06003	VADUPU DURGA DINESH	EEE
222	221FA07123	KONDRAGANTI LOKESH CHOWDARY	IT
223	231FA04835	PALLAPOTHU MOHANA KRISHNA VENI	CSE
224	231FK01066	VADRANAM POORNA BALAJI	BBA
225	231FA18113	DUPISETTY THANUJA	AIANDML
226	211FA01018	GOBATTINI CHANDANA	BIOTECH
227	211FA07089	TIRUNAGARI VENKATA GOPI KRISHNA	IT
228	221FW01061	NANDAM PHANINDRA SUBHASH	BSC HONS
229	201FA07057	KAKANI NAVYA SRI	IT
230	231FA04F17	SHAIK SAMEERA	CSE
231	211FA07062	PALADUGU GOPI KRISHNA	IT
232	221FC01053	KONDA KAVITHA	MBA
233	231FA18435	JAMMULA RUPAK BALAJI	AIANDML
234	231FA07032	SOMAIHAGARI PREM CHAND	IT
235	201FA04291	CHAVA RANJITH KUMAR	CSE
236	201FA07062	CHINTAKUNTLA VIVEK REDDY	IT
237	231FA18400	YEPURI REVANTH	AIANDML
238	211FA15014	KUCHIPUDI RAMA LAKSHMI SUNANDHANA	FT
239	201FA18009	SANAGALA BHAVANA	AIANDML
240	231FA05226	YALAVARTHI MADHURI	ECE
241	231FA04626	BELLAM SAI CHARAN	CSE
242	231FA23091	KOYA JHANSI	DS
243	231FA20014	SHAIK YASIN BASHA	CSBS
244	231FA19085	KONDRAGUNTA JOSHIT SIMHA	CSECS
245	211LA22001	RAJANALA ANKARAO	TT
246	211FM01006	BANDARU NANDINI	BSC
247	231FA04C78	BETHAPUDI VINCENT SAMUEL	CSE
248	231FA04B95	SHAIK MUZEEF	CSE
249	231FA04C94	PASUMARTHI SRI PRASANTH	CSE
250	221FK01094	SUMI KUMARI	BBA
251	231FA05033	JASTI UDAY TEJA	ECE
252	211FA04620	GUNDAVARAPU KIRAN MARUTI RANGA SAI SRI	CSE
253	221FD01032	KANAKAM SAI PREETHI	MCA

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254	231FK01101	DASARI HIMAGIRI	BBA
255	201FA16027	SHAIK AARIFA	BM
256	231FA04272	ORSU LIKHITA PRIYA	CSE
257	231FA04312	SHAIK MUNEER AHMED	CSE
258	231FA04557	GADIPARTHI ESWARI	CSE
259	231FD01064	THALLURI CHANDRA SEKHAR	MCA
260	211FA05111	YARLAGADDA RAMYA SHREE	ECE
261	221FA04063	VANKA BHUVANA SAI MOUNEENDRA	CSE
262	211FA05145	RAMINENI GAYATHRI SAI	ECE
263	221FA05096	VASIMALLA PRABHAS	ECE
264	231FA05072	ERUVURI VENKATA VASU REDDY	ECE
265	231FA04844	KARI POOJITHA	CSE
266	211FA07105	SHAIK AASIF	IT
267	211FA06023	CHALLA VENKATA GIRISH	EEE
268	231FA04118	PATHAN NAZEER	CSE
269	211FA05023	GHANTA VIGNESH	ECE
270	211FA14010	SYAMALA AKASH	BI
271	231FA18200	KOTA VARUN	AIANDML
272	231FA04871	JONNADULA ABHIRAM	CSE
273	211LA05038	SANIKOMMU SRIKANTH REDDY	ECE
274	221FC01083	SANNEBOINA MARY USHA SRI	MBA
275	221FA04156	KOTHURU VENKATA NAGA SAI KIRAN	CSE
276	221FA05083	SHAIK SAI BASHA	ECE
277	211FA04627	GUMMUDU SUMALATHA	CSE
278	231FA05298	DASARI PRIDHVI MANJUNADH	ECE
279	221FA01043	KODURU JAHNAVI SAI DURGA	BIOTECH
280	221FA18045	KORRA VENKATA KRISHNA NAGA MANIKANTA	AIANDML
281	231FA04838	KOYA NAVYA SRI	CSE
282	231FA04007	PALLAPOTHU VINAY	CSE
283	231FA14007	MYNENI JANANI SRI	BI
284	221FA04534	MODEM LAASYA	CSE
285	211FA18118	MANOJ DASARI	AIANDML
286	231FA14083	TALUPULA TANUJA	BI
287	221FC01065	PASUPULETI MANIBABU	MBA
288	231FA04F45	GORANTLA JAYA VARSHINI	CSE
289	211LA05012	PEDDAPULI REVANTH KUMAR	ECE
290	221FA04386	TALLURI LILADHAR AKHIL	CSE
291	231FC01129	KARRI BHARGAVI	MBA
292	231FK01129	MEESALA REVANTH SAI	BBA

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293	221FA06012	SUNKARA EESWARA REDDY	EEE
294	221FA04133	VANDANAPU RESHMA SUREKHA	CSE
295	221FA04507	DIVYA GUPTA	CSE
296	231FA18155	BOLLIMUNTHA SRI PAVAN	AIANDML
297	231FA18171	RAJULAPATI NIKHIL	AIANDML
298	231LA05026	PALLAPOTHU KIREETI	ECE
299	221FA14085	VUYYURU KESAVI HIMABINDHU	BI
300	231FA18369	SURAVARAPU BHAGYA NANDINI	AIANDML
301	231FA04A82	ALLAM VARSHINI	CSE
302	221LA03009	DANTHALA ANAND PAL	CIVIL
303	211FA04099	PUVVADA SOUMYA	CSE
304	211FA05046	MODUGAVARAPU SAI VINEETH	ECE
305	231FA18442	NICHENAKOLLA VEERENDRA CHAKRI	AIANDML
306	211FA04460	RAVIPUDI LAKSHMI PRASANNA	CSE
307	221FA04169	RAYAPUDI PRATHYUSHA	CSE
308	211FA04590	VISSA RAJA SAI SUMANTH	CSE
309	231FA23011	DEVAKI GOPI KRISHNA KURAKULA	DS
310	201FA04425	PEDDOJU VENKATA NAGARAJUNA	CSE
311	201FA19015	YALAMARTHI VENKATESH	CSECS
312	231FA20015	GALI ANIL KUMAR	CSBS
313	201FA04355	AYINAMPUDI NAGA SRIVALLI	CSE
314	231FA01098	GURAJALA YASWITHA	BIOTECH
315	221FA04473	BATTULA HIMA BINDU	CSE
316	231LA12011	KANCHARLA SAHITHI	AG
317	231FA18450	DIVI GOWTHAM CHOWDARY	AIANDML
318	231FA18094	GANGAVARAPU DILEEP CHANDU	AIANDML
319	201FA04361	KUNCHALA RAVI KIRAN REDDY	CSE
320	201FA01072	MADALA HIMA SRI	BIOTECH
321	231FA05257	VANUKURI LAKSHMI SIVA PARVATHI	ECE
322	231FA04F53	GUDE LAKSHMI VENKATA HARSHITHA	CSE
323	211FK01056	MODUGU NITHIN KUMAR	BBA
324	231FC01084	KUKKALA POOJITHA	MBA
325	201FA05067	TANGALLAMUDI RAMA SAI	ECE
326	231FA19056	GANTA BHARGAVI	CSECS
327	221FA04070	PASUPULETI NITHYA	CSE
328	231FA04899	MULPURI MUKUNDA NAGA DATTA SARMA	CSE
329	211LA05010	SURYADEVARA SAI LATHA	ECE
330	201FA04179	YARAGALLA KUMAR SAI	CSE
331	211FA04134	RAHUL CHANDRA	CSE

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332	221FD01015	CHITTIBOINA UPENDRA	MCA
333	211FA19052	GUDE TRIVENI	CSECS
334	231FA07131	MOHAMMAD AMEEN HUSSAIN	IT
335	211FA04271	BATHULA SAI TEJA	CSE
336	211FA05097	YAMARTHI UMA MAHESWARARAO	ECE
337	221FA04530	NOMINI BALA PRASANA BOPANA	CSE
338	231FW01095	MANGUNDU TANAKA	BSC HONS
339	211FA05229	PARIMI SAI TEJA	ECE
340	221FD01062	TALLAM SRI VYSHNAVI	MCA
341	231FA23048	KAKUMANU KALANJALI	DS
342	231FA04B29	KALATHURI VENKATA ROHITH KUMAR	CSE
343	201FA07068	KATIKA KALESWARAMMA	IT
344	211FA04431	MANDADAPU HRUSHIKESH	CSE
345	221FA05081	PAREPALLI LIKITH	ECE
346	201FA04160	MADDIREDDY VENKATA SESA SAI SRIJA	CSE
347	231FA23096	YERUVA VENKATA SATISH KUMAR REDDY	DS
348	211FA04338	TARUN PULIPATI	CSE
349	231FA04833	KODALI HEMANJALI	CSE
350	221FA18011	MACHARLA LAKSHMI SRINIVASA BHARGAVA SAI	AIANDML
351	221FA14068	DEVIREDDY MALLA REDDY	BI
352	231FA04A21	MAGULURI DIVYA SRI	CSE
353	231FA05064	SHAIK PAKALAPATI MABU SUBHANI	ECE
354	211FA05268	YANGALASETTY SAI KUMAR	ECE
355	231FA23040	BOYIDI NAGA AKSHAYA	DS
356	221FA05060	PERAM TANUJA	ECE
357	221FA04066	GUDAPATI PUJITHA	CSE
358	231FJ01030	BOINA NAGA MARUTHI KRISHNA	BCA
359	221FA04696	GUNTANALA VENKATAKRISHNA	CSE
360	231FA04518	MATCHA DHANUSH	CSE
361	231FW01089	CHIKOTO TAPIWANASHE MUNMARADZI	BSC HONS
362	211FA04424	PAMMI SOWJANYA	CSE
363	221FA04644	BACHINA NIKHILESH	CSE
364	201FA04099	JANGA NAGA VENKATA GANESH	CSE
365	231FA01034	KANDI SHIVANI	BIOTECH
366	231FA21010	GANAPA ADILAKSHMI	RA
367	221FA14069	SHAIK NADEEM	BI
368	201FA04277	GONDRALA MANASA PRIYA MOUNIKA	CSE
369	201FA05005	BOMMAGANTI KEERTHANA	ECE

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370	231FA04E54	SHALINI KUMARI	CSE
371	211LA10005	ATTHOTA ABHINAVA MANIKANTA CHOWDARY	AME
372	221FA05041	CHATRA SRAVANI	ECE
373	231FA18063	TAVVA JAGADISH	AIANDML
374	231FW01048	PATHAN SAMEENA KHANAM	BSC HONS
375	231FA05261	MURUKUTLA NAMITHA	ECE
376	221FA04498	NALLAGORLA BHARGAVI	CSE
377	231FA04B25	NAGABHAIRAVA OSHITHA	CSE
378	231FA16054	BURHAN LATEEF	BM
379	201FA01027	KANUGOLU HEMANTH KUMAR	BIOTECH
380	231FA04F05	ALA TANUJA	CSE
381	221FW01118	NETHULA VENKATA RAVALI	BSC HONS
382	221FA03001	NUKATOTI HANOKU	CIVIL
383	221FA04329	PEMMASANI SRI KRISHNA SAI	CSE
384	211FA02002	GUDIPUDI JAGADISHWAR RAO	CHEM
385	231FW01039	MANTRIPRAGADA LALITHA BALA TRIPURA SUNDARI	BSC HONS
386	211FA07138	SAI NITHEESH BIKKASANI	IT
387	221FC01027	YELURI ADITHYA MANIKANTA	MBA
388	231FA04G81	KOMATIGUNTA YAMUNA	CSE
389	211FW01051	VEMPARALA NAVYA SRI	BSC HONS
390	231FA01078	RUDRARAJU NEHA SRI	BIOTECH
391	211FA04002	GORIGE GAYATHRI	CSE
392	211FA05194	VEMULAPATI SUBBA REDDY	ECE
393	231FA23076	CHAPALA JYOTHIRMAI	DS
394	231FA14050	TATIPARTHI MADHURA VANI	BI
395	211LA04001	AKURATHI LAKSHMANA SAGAR	CSE
396	231FC01117	MORLA PAVAN	MBA
397	201FA04216	BANDREDDY SAI BASAVIAIAH NAIDU	CSE
398	211FA08010	BUTHUKURI MANIKANTA REDDY	MECH
399	221FA14075	SHAIK FUZEL AKTHER	BI
400	221FK01063	PONNEKANTI CHARAN PAVAN	BBA
401	231FA04G63	NITISH KUMAR	CSE
402	231FA04962	KANAKAM DIVYENDRA	CSE
403	211FA04363	MANDURI SAI ROSHINI	CSE
404	221FA14088	PATTIPATI JAI VENKAT	BI
405	211FK01003	ANGILIKA KRITHIKA	BBA
406	221FA01073	YARLAGADDA AANATHI	BIOTECH
407	231FA04051	NANDA HARIPRIYA	CSE

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408	201FA04248	DARLA PHANI PRAHARSHA	CSE
409	211FM01031	POTTI KOTESWARI	BSC
410	191FA05094	KAKARAPARTHI SESA RAO	ECE
411	231FA04716	KUNALA JITENDRA LAKSHMI NARAYANA PAVAN	CSE
412	201FA14002	SURASANI VARUN KUMAR REDDY	BI



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Summer**

Date:24.04.2024

Venue: ZPH School Angalakuduru

The Team UEAC on 24th April ,2024 in our adopted school Angalakuduru conducted an event on Awareness on Summer to bring awareness to the students in different parts of the school locality. The 36 students including section coordinators, chief organizers coordinators and volunteers participated in this event by educating students about Summer. It's important to be aware of the risks of heat exhaustion and heat stroke. Overdoing it in the summer heat can lead to either one of these ailments, or both of them.

So people must take their time and remember to take breaks. It's also a good idea to reschedule their work hours to cooler times of the day and avoid midday heat. Every step of the program was appreciated by the representatives of the administration. This event created a great stir among the students.



Awareness on Summer in ZPHS Angalakuduru on 24.04.2024

List of Volunteers:

Awareness on Summer in ZPHS Angalakuduru on 24.04.24			
S. No	Regd. No	Name	Branch
1	221FA01031	K. RAVEENA	BT
2	221FA01014	T. VASUNDHARA	BT
3	221FA01029	M. ASHRITHA	BT
4	221FA01004	AMRESH KUMAR	BT
5	221FA01053	TULASI VARANASI	BT
6	221FA01005	PRINCE KUMAR	BT

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7	221FA01052	N. MEGHANA	BT
8	221FA01020	SUNNY KUMAR	BT
9	221FA01027	NITISH KUMAR	BT
10	221FA01001	SAKLEN RAZA	BT
11	221FA01010	M. PRAVALLIKA	BT
12	221FA01063	SUCHITHA SHARON	BT
13	221FA01104	J. TRIVENI	BT
14	221FA01112	B.V. HEMAHARSHINI	BT
15	221FA01183	G.V.N. SANTHOSHI	BT
16	221FA01167	D. MADHAVI	BT
17	221FA01163	SK. HARSHAD	BT
18	221FA01136	A. CHANDRIKA	BT
19	221FA01112	HARSHINI	BT
20	221FA01146	HUSSAIN	BT
21	221FA01148	LALITHA	BT
22	221FA01164	SD. NAZIYA	BT
23	221FA01191	DIKSHA KUMARI	BT
24	221FA01206	MS. SAHIL	BT
25	221FA01152	MOKSHITHA	BT
26	221FA14047	S. GEETHIKA	BI
27	221FA14028	SK. HABIB	BI
28	221FA14049	R. YASAWI	BI
29	221FA14007	MAMATHA	BI
30	221FA14015	B. ALEKHYA	BI
31	221FA14020	R. HARSHITHA	BI
32	221FA14033	A. SOUMYA	BI
33	221FA14055	V. VAISHNAVI	BI
34	221FA14004	S. BHARGHAVI	BI
35	221FA14056	K. SATHWIKA	BI
36	221FA14037	V. SRI VARSHA	BI



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Mental Health**

Date:24.04.2024

Venue: ZP High School Angalakuduru

The Team UEAC on 24th April ,2024 in our adopted school Angalakuduru conducted an event on Awareness on mental health to bring awareness to the students in different parts of the school locality. The 36 students including section coordinators, chief organizers coordinators and volunteers participated in this event by educating students about mental health. It's important to be aware of the risks of loneliness and depression. To continue such state of mind for longer can lead to suicidal thoughts. So people must take their time and remember to take breaks. It's also a good idea to reschedule their work hours to balance life. Every step of the program was appreciated by the representatives of the administration. This event created a great stir among the students.



**Awareness on Mental health in ZPHS Angalakuduru on
24.04.2024**

List of Volunteers:

Awareness on Mental health in ZPHS Angalakuduru on 24.04.24			
S. No	Regd. No	Name	Branch
1	221FA01031	K. RAVEENA	BT
2	221FA01014	T. VASUNDHARA	BT
3	221FA01029	M. ASHRITHA	BT
4	221FA01004	AMRESH KUMAR	BT

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5	221FA01053	TULASI VARANASI	BT
6	221FA01005	PRINCE KUMAR	BT
7	221FA01052	N. MEGHANA	BT
8	221FA01020	SUNNY KUMAR	BT
9	221FA01027	NITISH KUMAR	BT
10	221FA01001	SAKLEN RAZA	BT
11	221FA01010	M. PRAVALLIKA	BT
12	221FA01063	SUCHITHA SHARON	BT
13	221FA01104	J. TRIVENI	BT
14	221FA01112	B.V. HEMAHARSHINI	BT
15	221FA01183	G.V.N. SANTHOSHI	BT
16	221FA01167	D. MADHAVI	BT
17	221FA01163	SK. HARSHAD	BT
18	221FA01136	A. CHANDRIKA	BT
19	221FA01112	HARSHINI	BT
20	221FA01146	HUSSAIN	BT
21	221FA01148	LALITHA	BT
22	221FA01164	SD. NAZIYA	BT
23	221FA01191	DIKSHA KUMARI	BT
24	221FA01206	MS. SAHIL	BT
25	221FA01152	MOKSHITHA	BT
26	221FA14047	S. GEETHIKA	BI
27	221FA14028	SK. HABIB	BI
28	221FA14049	R. YASAWI	BI
29	221FA14007	MAMATHA	BI
30	221FA14015	B. ALEKHYA	BI
31	221FA14020	R. HARSHITHA	BI
32	221FA14033	A. SOUMYA	BI
33	221FA14055	V. VAISHNAVI	BI
34	221FA14004	S. BHARGHAVI	BI
35	221FA14056	K. SATHWIKA	BI
36	221FA14037	V. SRI VARSHA	BI

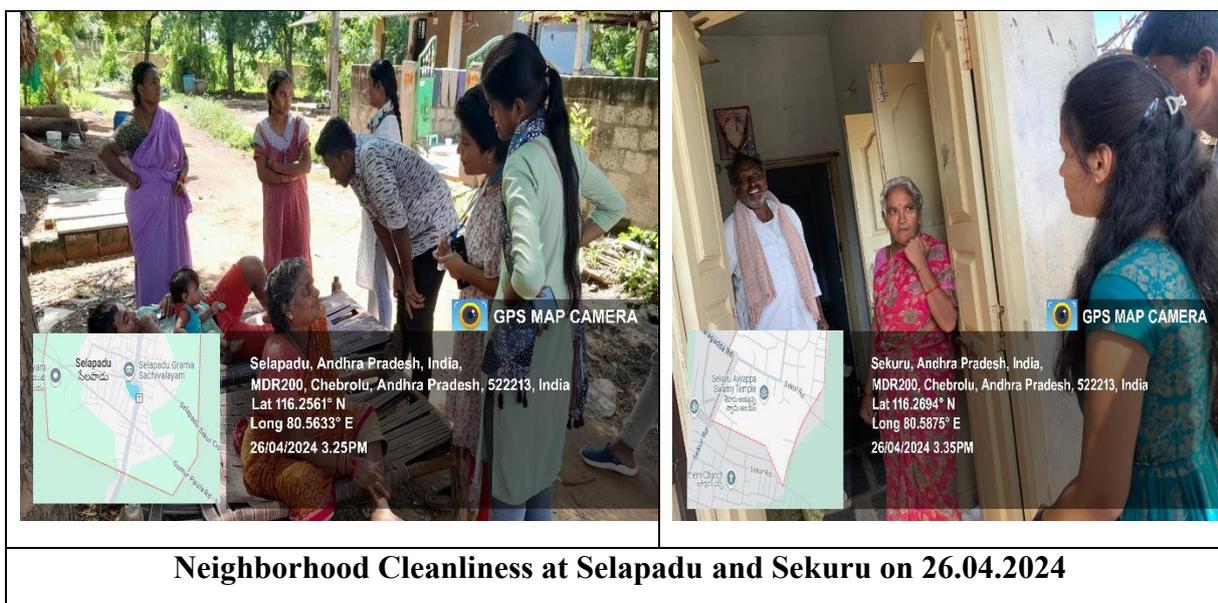


**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Neighbourhood Cleanliness**

Date:26.04.2024

Venue: Selapadu, Sekuru

The UEAC team organized an event at our adopted village Selapadu, Sekuru on 26 April 2024. The 45 students including section coordinators, chief organizers, coordinators and volunteers participated in this event. Living in a clean environment makes life healthier, less stressful, and more pleasant. It can improve the self-image of residents and the neighbourhood as a whole. A neighbourhood that smells like garbage or looks like a dump is an undesirable place to live and work. Thus, the participants were highly enthusiastic to make it a big success and addressed several key points. Walk, bike, or use public transportation to reduce air pollution. Teach others about the importance of keeping our environment clean. Participate in community clean-up events to help maintain cleanliness. Respect animals and their habitats to maintain a balanced ecosystem.



List of Volunteers:

Neighbourhood Cleanliness on 26.04.2024			
S. No	Reg. No	Name	Branch
1	231FA05276	ANNAM BHAVISHYA PRIYA	ECE
2	221FA01084	RAVIPATI SAI VYSHNAVI	BIOTECH
3	231FA04D87	ANGALAKUDURU NAVYA MANI SRI	CSE
4	231FA18392	SOMAVARAPU NAGARJUNA	AIANDML
5	211FW01080	MUCHU JAYANTHI	BSC HONS
6	231FA05203	KESABOYINA CHANDRA SURESH PAVAN KUMAR	ECE
7	221FA14002	MUTHOJU SRIRAM	BI
8	231FC01060	OGGU SOWMYA VENKATA SOWJANYA LAKSHMI	MBA

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9	231FD01028	KONDURI SRINIVASARAO	MCA
10	221FA04610	ALLA DEEPTHI	CSE
11	221FA18110	ANDALURI HEMA VENKATA NAGESWARI	AIANDML
12	211FA18021	MUDDA KAPIL RAJ	AIANDML
13	201FA05033	SAKIRI MOHAN CHANDRA BALA NAIDU	ECE
14	221FA18118	MUKESH LAKSHMI SAI MEDIKONDA	AIANDML
15	231FA05137	AKKAPEDDI SRI NIVEDITHA	ECE
16	211FA05138	DADI VARDHAN	ECE
17	231FA18252	VARIKUTI DHARANEESWAR	AIANDML
18	221FA07106	VULLAMGUNTA LOKESH KUMAR	IT
19	211FA19057	YEPURI MANIKANTA	CSECS
20	231FD01066	THATAVARTHI KAVYA SRI	MCA
21	221FA18177	MADDI KEERTHI PRANEETHA	AIANDML
22	211FA04669	VIKASH RANJAN	CSE
23	231LA06009	SHAIK MOHAMMAD FAROOQ	EEE
24	231FA07077	BANDLA VARSHINI	IT
25	221FA19049	GANTA SUNDEEP	CSECS
26	231FA08012	VEMULAMADA NAGA SRINIVAS	MECH
27	211FA01006	MINUMANURI KOTLO JYOTSHNA	BIOTECH
28	231FC01116	SHAIK NAGURBASHA	MBA
29	211LA12009	V RACHANA	AG
30	201FA14030	GADI ADITYA VARMA	BI
31	231FW01044	NAGARAJU HEMANTH VARAMA	BSC HONS
32	211FK01039	KANDURI Y V SAI ESWAR KUMAR	BBA
33	211FA14068	ATMAKURI VENKATA MONIKA SARVANI	BI
34	231FA04435	UPPALAPATI LAKSHMI DURGA	CSE
35	221FK01062	PISAPATI SATYA KUMAR	BBA
36	231FA04482	TALLURI AKASH	CSE
37	231FM01001	MANAPATI KOWSHIK	BSC
38	211FA18128	PARAMATA SWAROOP NANDA	AIANDML
39	221FA04168	DAMARLA GAGANA DEEPIKA	CSE
40	231FJ01061	INUPAGOLLA GAYATRI	BCA
41	231FA19053	YEDULA SUBRAHMANYESWARA	CSECS
42	231FA04289	ARIKATLA YASWANTH REDDY	CSE
43	221FA05003	UPPALA NEHA TULASI	ECE
44	201FA04374	ICHAPURAM S HEMANTH	CSE
45	221FA05150	RAMISETTY GANESH KARTHIK	ECE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Water Conservation**

Date:26.04.2024

Venue: Selapadu, Sekuru

We the team UEAC have conducted an event to bring awareness on Water Conservation at Selapadu and Sekuru villages. The main aim of this event is to educate people about the importance of water and to conserve water by different using methods.

Our team of UEAC members from the civil department organized this event. This event motivates people to conserve water and helps them to understand the importance of conserving water, all along helping them understand how to manage freshwater, reduce wastage and protect the water to avoid scarcity. They came to know that the water problems could be solved by implementing the rainwater-harvesting method. Our NSS volunteers along with Chief organizers and Chief coordinators visited the village and explained to the people about the importance of water conservation.

The program commenced with an assembly of 45 NSS volunteers and members along with the organizers at 1:30 PM. After being split up into groups, they reached the village by 2:20 PM. Each group addressed the people and they returned to college by 4:00 PM.



List of Volunteers:

Awareness on Water Conservation at Selapadu, Sekuru on 26.04.2024			
S.NO	REG.NO	NAME OF THE EVENT	BRANCH
1	231FA05276	ANNAM BHAVISHYA PRIYA	ECE
2	221FA01084	RAVIPATI SAI VYSHNAVI	BIOTECH
3	231FA04D87	ANGALAKUDURU NAVYA MANI SRI	CSE
4	231FA18392	SOMAVARAPU NAGARJUNA	AIANDML
5	211FW01080	MUCHU JAYANTHI	BSC HONS

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6	231FA05203	KESABOYINA CHANDRA SURESH PAVAN KUMAR	ECE
7	221FA14002	MUTHOJU SRIRAM	BI
8	231FC01060	OGGU SOWMYA VENKATA SOWJANYA LAKSHMI	MBA
9	231FD01028	KONDURI SRINIVASARAO	MCA
10	221FA04610	ALLA DEEPTHI	CSE
11	221FA18110	ANDALURI HEMA VENKATA NAGESWARI	AIANDML
12	211FA18021	MUDDA KAPIL RAJ	AIANDML
13	201FA05033	SAKIRI MOHAN CHANDRA BALA NAIDU	ECE
14	221FA18118	MUKESH LAKSHMI SAI MEDIKONDA	AIANDML
15	231FA05137	AKKAPEDDI SRI NIVEDITHA	ECE
16	211FA05138	DADI VARDHAN	ECE
17	231FA18252	VARIKUTI DHARANEESWAR	AIANDML
18	221FA07106	VULLAMGUNTA LOKESH KUMAR	IT
19	211FA19057	YEPURI MANIKANTA	CSECS
20	231FD01066	THATAVARTHI KAVYA SRI	MCA
21	221FA18177	MADDI KEERTHI PRANEETHA	AIANDML
22	211FA04669	VIKASH RANJAN	CSE
23	231LA06009	SHAIK MOHAMMAD FAROOQ	EEE
24	231FA07077	BANDLA VARSHINI	IT
25	221FA19049	GANTA SUNDEEP	CSECS
26	231FA08012	VEMULAMADA NAGA SRINIVAS	MECH
27	211FA01006	MINUMANURI KOTLO JYOTSHNA	BIOTECH
28	231FC01116	SHAIK NAGURBASHA	MBA
29	211LA12009	V RACHANA	AG
30	201FA14030	GADI ADITYA VARMA	BI
31	231FW01044	NAGARAJU HEMANTH VARAMA	BSC HONS
32	211FK01039	KANDURI Y V SAI ESWAR KUMAR	BBA
33	211FA14068	ATMAKURI VENKATA MONIKA SARVANI	BI
34	231FA04435	UPPALAPATI LAKSHMI DURGA	CSE
35	221FK01062	PISAPATI SATYA KUMAR	BBA
36	231FA04482	TALLURI AKASH	CSE
37	231FM01001	MANAPATI KOWSHIK	BSC
38	211FA18128	PARAMATA SWAROOP NANDA	AIANDML
39	221FA04168	DAMARLA GAGANA DEEPIKA	CSE
40	231FJ01061	INUPAGOLLA GAYATRI	BCA
41	231FA19053	YEDULA SUBRAHMANYESWARA	CSECS
42	231FA04289	ARIKATLA YASWANTH REDDY	CSE
43	221FA05003	UPPALA NEHA TULASI	ECE
44	201FA04374	ICHAPURAM S HEMANTH	CSE
45	221FA05150	RAMISETTY GANESH KARTHIK	ECE



**University Extension Activity Council (UEAC)
Annual Report – 2023-24
Awareness on Energy Conservation**

Date:26.04.2024

Venue: Selapadu, Sekuru

The UEAC team organized an event aimed at raising awareness about **Energy Conservation** in the villages of Selapadu and Sekuru. The primary goal of this initiative was to educate the community on the importance of conserving energy and adopting sustainable energy practices in daily life.

The event was organized by UEAC members from the civil department and focused on motivating residents to reduce energy consumption. It helped the villagers understand the significance of managing energy resources, minimizing wastage, and protecting energy sources to avoid scarcity. Through discussions and demonstrations, the villagers learned about practical methods for energy conservation, such as using energy-efficient appliances, switching to LED lighting, and implementing renewable energy solutions like solar power.

The program began at 1:30 PM with an assembly of 45 NSS volunteers, team members, and organizers. After being divided into groups, the teams arrived in the villages by 2:20 PM. Each group held interactive sessions with the villagers to share knowledge about energy-saving techniques. By 4:00 PM, the volunteers returned to the college, concluding a successful and impactful awareness drive on energy conservation.



Awareness on Energy Conservation on 26.04.2024

List of Volunteers:

Awareness on Energy Conservation on 26.04.2024			
S. No	Reg. No	Name	Branch
1	231FA05276	ANNAM BHAVISHYA PRIYA	ECE
2	221FA01084	RAVIPATI SAI VYSHNAVI	BIOTECH
3	231FA04D87	ANGALAKUDURU NAVYA MANI SRI	CSE
4	231FA18392	SOMAVARAPU NAGARJUNA	AIANDML
5	211FW01080	MUCHU JAYANTHI	BSC HONS
6	231FA05203	KESABOYINA CHANDRA SURESH PAVAN KUMAR	ECE

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7	221FA14002	MUTHOJU SRIRAM	BI
8	231FC01060	OGGU SOWMYA VENKATA SOWJANYA LAKSHMI	MBA
9	231FD01028	KONDURI SRINIVASARAO	MCA
10	221FA04610	ALLA DEEPTHI	CSE
11	221FA18110	ANDALURI HEMA VENKATA NAGESWARI	AIANDML
12	211FA18021	MUDDA KAPIL RAJ	AIANDML
13	201FA05033	SAKIRI MOHAN CHANDRA BALA NAIDU	ECE
14	221FA18118	MUKESH LAKSHMI SAI MEDIKONDA	AIANDML
15	231FA05137	AKKAPEDDI SRI NIVEDITHA	ECE
16	211FA05138	DADI VARDHAN	ECE
17	231FA18252	VARIKUTI DHARANEESWAR	AIANDML
18	221FA07106	VULLAMGUNTA LOKESH KUMAR	IT
19	211FA19057	YEPURI MANIKANTA	CSECS
20	231FD01066	THATAVARTHI KAVYA SRI	MCA
21	221FA18177	MADDI KEERTHI PRANEETHA	AIANDML
22	211FA04669	VIKASH RANJAN	CSE
23	231LA06009	SHAIK MOHAMMAD FAROOQ	EEE
24	231FA07077	BANDLA VARSHINI	IT
25	221FA19049	GANTA SUNDEEP	CSECS
26	231FA08012	VEMULAMADA NAGA SRINIVAS	MECH
27	211FA01006	MINUMANURI KOTLO JYOTSHNA	BIOTECH
28	231FC01116	SHAIK NAGURBASHA	MBA
29	211LA12009	V RACHANA	AG
30	201FA14030	GADI ADITYA VARMA	BI
31	231FW01044	NAGARAJU HEMANTH VARAMA	BSC HONS
32	211FK01039	KANDURI Y V SAI ESWAR KUMAR	BBA
33	211FA14068	ATMAKURI VENKATA MONIKA SARVANI	BI
34	231FA04435	UPPALAPATI LAKSHMI DURGA	CSE
35	221FK01062	PISAPATI SATYA KUMAR	BBA
36	231FA04482	TALLURI AKASH	CSE
37	231FM01001	MANAPATI KOWSHIK	BSC
38	211FA18128	PARAMATA SWAROOP NANDA	AIANDML
39	221FA04168	DAMARLA GAGANA DEEPIKA	CSE
40	231FJ01061	INUPAGOLLA GAYATRI	BCA
41	231FA19053	YEDULA SUBRAHMANYESWARA	CSECS
42	231FA04289	ARIKATLA YASWANTH REDDY	CSE
43	221FA05003	UPPALA NEHA TULASI	ECE
44	201FA04374	ICHAPURAM S HEMANTH	CSE
45	221FA05150	RAMISETTY GANESH KARTHIK	ECE

Sustainability Literacy Assessment Report

Introduction

This report presents the methodology and outcomes of measuring sustainability literacy among students at Vignan University. The purpose is aligned with THE Impact Ranking (Metric 17.4.4), ISO 9001:2015 quality management standards, UI (University Impact) metrics targets, and institutional sustainability initiatives such as CO₂ emission reduction, air quality monitoring, electric vehicle transition, and renewable energy adoption, including biogas and solar power.

Objective

To assess the level of sustainability knowledge, awareness, and retention among students across various programs at Vignan University. The assessment also aims to integrate sustainability literacy with ISO 9001:2015 quality indicators and UI metrics to strengthen institutional sustainability goals.

Methodology

Vignan University adopts a structured approach.

Sustainability Literacy Questionnaire (SLQ): Covers SDGs, climate action, renewable energy, emissions, and quality management.

- **Course-Embedded Assessments:** Evaluates learning outcomes, ISO quality practices, and environmental management topics.
- **Sustainability Indicators Awareness:** Students evaluated familiarity with UI metrics, carbon footprint, biodiversity, air quality, and energy systems.
- **Retention Analysis:** Pre-test and post-test comparison for long-term learning.

Campus Sustainability Indicators Integrated into Literacy Assessment

- **ISO 9001:2015 Alignment:** Students are assessed on awareness of quality management, continuous improvement, and documentation practices.
- **UI Metrics Targets:** Includes understanding of sustainability targets such as waste reduction, energy efficiency, gender equity, and community outreach.
- **CO₂ Emission Monitoring:** Campus emission data and reduction strategies are part of case studies used in assessments.
- **Air Quality Index (AQI):** Students learn how AQI is measured and its impact on health and the environment.
- **Electric Vehicle Initiatives:** Awareness of the university's EV adoption plan and carbon reduction benefits.

- **Renewable Energy (Biogas & Solar):** Students are introduced to campus solar power capacity and biogas waste-to-energy systems.

Campus Data

Indicator	Unit	2022-23	2023-24	Remarks
CO ₂ Emission	Tons/year	132	118	10% reduction due to solar expansion
Solar Power Installed	kWp	450	600	New rooftop installations completed
Biogas Production	kg/day	35	48	Increased kitchen waste processing
AQI (Campus Average)	Index	62	55	Improved air filtration & green cover
Electric Vehicles (Campus Fleet)	Vehicles	12	21	Phased replacement of fuel vehicles

Integration with Student Learning

The sustainability literacy tools incorporate real campus data such as emissions, renewable energy, and air quality. This practical exposure improves students’ understanding and retention, aligning with ISO 9001:2015 principles of continuous improvement and UI metric targets.

Action Plan (2024–25)

- Introduce ISO 9001:2015-based sustainability quality modules.
- Include live CO₂ dashboards and AQI monitors in student projects.
- Expand EV charging stations on campus.
- Increase solar capacity to 750 kWp and upgrade the biogas plant.

ISO 9001:2015

Vignan University aligns its sustainability practices with the ISO 9001:2015 Quality Management System. This includes structured documentation, continuous improvement cycles, stakeholder satisfaction tracking, and process-based management. The university ensures that sustainability literacy assessments follow the same quality assurance framework.

UI Metrics Targets

The University Impact (UI) Metrics framework guides Vignan University in areas such as gender equity, green initiatives, community engagement, waste management, clean energy adoption, and academic outcomes. Students are evaluated on their understanding of these institutional sustainability targets.

CO₂ Emission Data

The campus monitors Scope 1 and Scope 2 CO₂ emissions through energy audits, fuel usage reports, and renewable energy offsets. A steady decline in emissions has been achieved due to increased solar energy generation and electric mobility initiatives.

Air Quality

Air Quality Index (AQI) is monitored regularly across the campus using digital sensors. Data indicate a year-on-year improvement due to expanded green cover, restricted vehicle movement, and pollution-control measures. Students learn AQI interpretation as part of environmental literacy.

Electric Vehicles

Vignan University is transitioning towards a green transportation model by introducing electric buggies, e-bikes, and electric staff vehicles. Charging stations and awareness activities support eco-friendly mobility.

Biogas System

The campus biogas plant converts kitchen waste into clean fuel, supporting both waste management and energy efficiency. Students learn circular economic concepts by studying the biogas generation cycle.

Solar Energy

The university has installed rooftop solar PV systems across academic and administrative buildings. This reduces dependency on non-renewable energy and supports carbon reduction goals. Students engage in solar energy monitoring projects.

Conclusion

Vignan University's sustainability literacy initiative is closely integrated with real environmental performance data, quality systems, and UI metrics. This ensures that students acquire practical and measurable sustainability knowledge aligned with global standards.



VFSTR: A Green Campus

Vignan's Foundation for Science, Technology, and Research (VFSTR), deemed to be university, has been preparing globally acceptable, industry-ready skilled professionals to aid the socio-economic transformation of the region as well as the country as a whole. It is dedicated to provide quality education in a diverse and intellectually stimulating environment. The institute celebrates the power of knowledge, cultivates vision and builds awareness about the self and society around. VFSTR situated in the rural area of Vadlamudi in Guntur district of Andhra Pradesh offers a pristine green environment to its students and staff. The following sustainable practices are carried out on campus for achieving an eco-friendly environment.

- **Sustainable Energy Use at VFSTR campus**

The campus employs a very sustainable approach towards energy consumption. Architecture of the campus is such that natural sunlight and ventilation can be used to its maximum in order to reduce energy consumption. VFSTR utilizes about 61% energy from grid supply and 39% from 1MW solar PV Power plant solar power plant which was installed and became operational in 2018. Use of LEDs, smart sensing ACs are also present at the campus to reduce energy consumption. Special awareness programmes on energy conservation and instructions are given to the staff and students for sustainable use of electricity on campus.

Apart from the solar power plant renewable energy use is promoted on campus. An on campus biogas plant is installed for generating biogas for cooking purpose from the vegetable waste and food waste generated in the campus hostel, dining halls and cafes. The BioUrja-1000KPD biogas plant was installed in 2018 at VFSTR having a total cost of Rupees 65.00

lakhs which and was supplied by M/S GPS Renewables Pvt.Ltd., Bengaluru. The capacity of the installed Biogas plant is to digest 1000 kg of food waste per day. The biogas yield is ~70 kg of LPG equivalent per day.



Figure 1: showing solar power plant on the terrace of U-Block in VFSTR campus



Figure 2: Biogas Plant at VFSTR campus



Figure 3: Use of on campus e-vehicles

- **Solid-waste Management at VFSTR campus**

Waste Management initiative was taken in view of maintaining Green environment, Go-Green initiative and National Mission on Clean and Green Environment like SWACH Bharat Mission. In the VFSTR campus No Smoking and No Tobacco, Vehicles restriction, Garbage segregation, reusing waste and rain water harvesting are followed. All the steps took toward the waste management in the VFSTR campus are to oblige global cause by initiating the necessary steps.

All the solid waste in each block, hostel rooms, surrounding areas, and library, restrooms and kitchen waste are segregated and collected each morning by housekeeping staff in separate containers and loaded into the truck. All the wet waste is gathered at waste yard marked as compost pit at the extreme end of the campus. The dry waste collected is used as landfills. The remaining plastic materials, tin cans and glass bottles are sent to recycling shops and collection centers. The recycled wet waste is used as a manure/ fertilizer on the campus. The VFSTR University encourages students and staff not to use plastics and use a reusable, recyclable material. To utilize the water carefully, instructions and save water sign boards are also attached at drinking facilities.

Total waste collected in a day (including wet and dry waste)=890kg and Volume of waste=3.567m³ . For plastic waste management a pet bottle shredder has also been installed at university premises.



Figure 4: Segregation of waste at source



Figure 5: Plastic bottle shredder at dining halls

- **Liquid-waste management and water conservation practices**

A 600 KLD capacity sewage treatment plant system is being set up at VFSTR campus by Bluedrop enviro pvt. ltd. which uses the technology of artificially constructed wetland system. This technology uses phytoremediation and microbial remediation techniques for sewage water treatment. This STP is engineered systems to use the natural functions vegetation, soil, and organism to provide waste water treatment to wastewater. After treatment this waster will be reused for gardening and car washing purposes. Rain water harvesting practices are also carried out on campus.



Figure 5: Sewage Treatment Plant at VFSTR

- **Green campus and herbal garden**

Apart from all the green initiatives, VFSTR maintains a green campus housing a vibrant biodiversity. Several species of trees, shrubs and herbs are found on the campus which serves as habitat for animal and bird species. It also has its own herbal garden of prominent medicinal herbs.



Figure 6: VFSTR Green Campus



Figure 7: VFSTR herbal garden

- **Environmental Awareness Campaigns**

VFSTR conducts periodic on campus awareness programmes on environmental issues along with other outreach programmes such as swachha bharaat abhiyan etc. To further initiate awareness among the students and the staff VFSTR aims to organize more conferences, seminars and workshops on plastic waste management.



Figure 8a: Environmental awareness campaigns and programmes

Celebrate
WORLD ENVIRONMENT DAY 5th JUNE 2023
 Theme: **BEAT PLASTIC POLLUTION**

JOIN THE WEBINAR

DIVERTED FROM LANDFILL : REUSE OF SINGLE USE PLASTIC PACKAGING WASTE

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 Composite Materials Processing,
 Univ. of Edinburgh, UK

Chief Patrons
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 Chairman, Vignan Group
 Mr. L. Sri Krishnadevarayulu
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 Dr. Sudip Mandal, Asst. Prof., Chemistry, SASH, VFSTR

Convenors
 Dr. Shubhalakshmi Sengupta
 Asst. Prof. (Scientist), Chemistry,
 SASH, VFSTR, Co-ordinator, CEPC
 Dr. M. V. K. Srinani
 Assoc. Prof. Chemistry,
 SASH, VFSTR

01.30p.m on 05-06-2023 (Online via Zoom) | Please register : <https://forms.gle/d9GD5C63FP7TTC149>

Organized by
Centre for Environmental Pollution and Control
 in association with
 • Department of Chemistry • School of Applied
 Science and Humanities (SASH), VFSTR

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VIGNAN'S
 Foundation for Science, Technology & Research
 (Deemed to be UNIVERSITY)
 - 2008 Act & 2019 Act - 2019



Figure 8b: Environmental awareness campaigns and programmes



Figure 8c: Environmental awareness campaigns and programmes at VFSTR and in adopted villages



Figure 8d: Environmental awareness campaigns and programmes at VFSTR and in adopted villages



Figure 8e: Environmental awareness campaigns and programmes at VFSTR



Figure 8f: Environmental awareness campaigns and programmes at VFSTR

Thus, VFSTR campus is an eco-friendly campus which promotes energy efficiency. It conduct environmental, energy and safety audits on campus and employs designated centres, committees and staff more maintenance of a sustainable, energy efficient green campus.

Report prepared by Centre of Environmental Pollution Control (CEPC), VFSTR.

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N. Srinivasulu

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