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From the **Editorial Desk**

"Education is not the filling of a pail, but the lighting of a fire"

This philosophy resonates deeply with Vignan's University, where learning is not confined to textbooks but extends into real-world experiences, cultural enrichment, and social responsibility.

National Science Day celebrations reflected this spirit as students engaged in discussions on Quantum Computing and Micro-Electro-Mechanical Systems (MEMS), expanding their understanding of emerging technologies. Strengthening the link between academia and industry, the institution has fostered collaborations that equip students with practical insights, ensuring they are prepared for the dynamic professional world. The commitment to experiential learning was further exemplified when agriculture students visited the Rythu Nestham Foundation, gaining exposure to organic farming, drone technology, and sustainable agricultural practices, proving that the roots of knowledge run deeper when nurtured with real-world applications.

Beyond science and technology, Vignan remains a custodian of tradition and social values. The Thyagaraja Aradhana celebrations served as a beautiful tribute to the rich heritage of Carnatic music, reaffirming that knowledge flourishes when harmonized with cultural roots. The university's progressive outlook shone through during International Women's Day, where eminent personalities like ISRO scientist Ms. Nirupama Tiwari and Dr. K. Meghana inspired students with insights on financial independence and leadership, urging young women to break barriers and carve their own paths. Social consciousness found another powerful expression in the Swachh Vignan initiative, where 640 students and faculty members united to promote hygiene and environmental responsibility, turning the campus into a reflection of Mahatma Gandhi's vision of a cleaner India.

As Vignan moves forward, its students carry not just degrees but the spirit of progress, the strength of knowledge, and the grace of culture. Like a river flowing towards the ocean, expanding yet rooted in its source, Vignan continues its journey

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From Vision to Innovation: Vignan's Drone Technology Centre

Vignan's University has always been at the forefront of innovation.





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One Step at a Time, for a Better Tomorrow!

The Swachh Vignan drive held on 22nd February 2025 from 3:00 pm - 4:00 pm at VFSTR was truly unique.

University Achievement

FROM VISION TO INNOVATION Vignan's Drone Technology Centre

ignan's University has always been at the forefront of innovation. In this regard, the launch of the Drone Technology Centre (Centre of Excellence for Autonomous Systems) in collaboration with SEC Industries Private Limited, Hyderabad, marks another milestone in the university's history, which continues to be one

of the most modernized institutions of learning capable of driving future technology. The centre hopes to bridge the gap between classroom and real-world work experience and ensure that students have the requisite theoretical and practical training in drone technologies.

The centre has the capacity to teach students in the areas of design,

programming, and operation of drones. It also specializes in autonomous navigation, remote sensing, and AI-powered drones, which is necessary for the emerging job market. Furthermore, it will benefit students in doing internships and industry projects. Lectures and workshops by professionals and industry



stakeholders will be organized to provide students with a broad perspective of the field. To motivate creativity, the center promotes drone-based startups and organizes talent search competitions and hackathons.

During the inauguration, Hon'ble Vice-Chancellor, Col. Prof. P. Nagabhushan, stated, "This project will improve practical skills alongside classroom activities." Vignan's University, along with other centers of knowledge extends special thanks to Shri. Vidhyasagar Dontineni, Managing Director of SEC Industries Pvt Ltd., for his invaluable support. It also feels grateful to Dr. Padmanabhan (Sir) and Shri. Subbarao Sir for their significant





contributions in turning this vision into reality. The centre aims to accelerate industry partnership and prepare students with relevant skills for the evolving world of drone technology.



A. Rishitha, II CSE

by

University Achievement ...



Collaboration with the Textile Department Samagra Shiksha, Andhra Pradesh

n 03rd March, 2025, Samagra Shiksha, under the Department of School Education, Andhra Pradesh, is making significant strides in providing vocational education with a special focus on the Textile and Apparel sectors. Through

strategic partnerships with leading institutions like Vignan's Foundation for Science, Technology and Research (Vignan's University), Samagra Shiksha aims to bridge the gap between education and industry by offering hands-on experiences and advanced training to Apparel



Trade Trainers. A recent highlight of this collaboration was the visit of 175 Apparel Trade Trainers to Vignan's University's Department of Textile Technology. The trainers received practical exposure to modern garment-making processes and cutting-edge textile technologies. This visit was part of a dedicated training program that enriched the trainers' knowledge, enabling them to bring advanced industry practices into classrooms across Andhra Pradesh. Vignan's University further strengthened this initiative by providing trainers with awareness about the special scholarship schemes, especially for B.Tech programs in Textile Technology and Technical Textiles. The university is also offering unique opportunities, including targeted scholarships for children of weavers and artisan families, promoting inclusivity and encouraging students to pursue higher education in textiles.

This partnership not only enhances vocational training but also opens pathways for students to advance into specialized textile programs, supported by Vignan's scholarship initiatives. Samagra Shiksha's focus on the Apparel Trade, combined with Vignan's University's academic support, is set to create and empower the next generation of professionals in the textile and garment industries who would be contributing to the socio-economic development of Andhra Pradesh.

Adding to this remarkable effort, Vignan's University has secured funding worth ₹9.15 crore from the Ministry of Textiles, Government of India, under the National Technical Textiles Mission, for the establishment of state-of-the-art Technical Textile laboratories at our University premises. This initiative is set to transform the landscape of textile education and industry development in Andhra Pradesh.

Establishing these specialized Technical Textile laboratories will serve as a game-changer for students, researchers, and industry professionals in the state which would discuss and create solutions that impact the Textile industry. As a result of this latest development, students of the textile department will have access to cutting-edge infrastructure and technologies, enabling them to gain expertise in composites, medical textiles, geotextiles, protective textiles, and smart textiles-critical areas of growth in the global textile industry.

These labs will facilitate hands-on training, bridging the gap between academic knowledge and industry requirements. Graduates will be better equipped to work in hightech textile sectors, enhancing their employability. With access to modern testing and manufacturing facilities, students and faculty will be able to conduct research and develop innovative textile products that cater to emerging industrial demands.

The laboratories will also act as an incubation centre, supporting young entrepreneurs interested in technical textiles, and fostering start-ups and innovations that can contribute to the growth of the textile industry. The presence of advanced research facilities will attract textile industries and research organizations to collaborate with Vignan's University, driving



technology transfer and industrial partnerships. This partnership between Samagra Shiksha and Vignan's University, further strengthened by the Technical Textile Laboratories initiative, is poised to revolutionise textile education, empower students, contribute to its socio-economic progress by creating a skilled workforce, and promote innovation to boost Andhra Pradesh's Textile Sector.

by Dr. Govaradhana Rao Chilukoti Coordinator & Asst. Prof. Dept. of Textile Technology





University Achievement



Cleaning Our Campus One Step at a Time, for a Better Tomorrow

he Swachh Vignan drive held on 22nd February 2025 from 3:00pm-4:00pm at VFSTR was truly unique. It propagated cleanliness and hygienic practices among the residents of the campus organized an event by the University Extension Activity Council (UEAC). It was meant to motivate the students and faculty members towards the philosophy of cleanliness as envisioned by mahatma Gandhi for a clean India.

Objectives

The principal objective of this cleanliness drive was to promote the importance of sanitation, hygiene, and cleanliness on the campus. The drive is inspired by the vision of Mahatma Gandhi on the basis of how he imagined cleaner and healthier India. The aim of the initiative is to make the campus cleaner and hygienic, and most importantly, directly contribute to the well-being and productivity of the campus inhabitants.

Areas Covered

The drive targeted specific areas of the campus, often prone to littering and needing frequent cleaning:

A Block - Library - H Block - Bike Parking - Staff Mes Point - U Block - Sports Grounds.

Speakers And Coordinators

Dr. Veeranjaneyulu (First-Year UEAC Faculty Coordinator): He focused on teaching the need of sanitation and hygiene in life.

Mr. D. Suresh Babu (University UEAC Coordinator): He revealed the importance of this initiative at the university.

Mr. G. Ganga Prasad (ECE UEAC Faculty Coordinator): He conveyed that cleanliness is means of ensuring a productive academic environment.

Dr. Vijaya Babu Palukuri (UEAC Programme Officer): Encouraged students to get involved and took on the importance of personal hygiene and cleanliness to ensure a healthy campus.

Participation

This drive saw participation of 640 students. This also includes the faculty and maintenance staff who joined the students, to make it a very complete campus-from-topto-bottom through welfare effort. Volunteers from various departments joined the journey promisingly showing together that the columns were united in the goal of achieving a cleaner and better organized campus.

- Gloves And Masks Were Provided To Participants To Help Promote Hygiene And Safety While Cleaning.
- Large Bags Were Used To Collect Litter And Properly Disposed Of Waste To Ensure Better Waste Management.
- Washing Hands With Soap After Completing The Tasks Was Further Hygiene For The Participants, Reminding Them That Cleanliness Was To Be Applied In All Walks Of Life.

Impact

- Awareness Of Cleanliness And Hygiene.
- Cultivated A Sense Of Responsibility In The Minds Of Students For Cleanliness Beyond Being Restricted To The Grounds In Their Personal Life.
- Contributed To A Healthier Campus, Which Is A Prerequisite For The Healthfulness, Well-Being, And Productivity Of Any Person In The Campus.

Outcome

The cleanliness drive named Swachh Vignan, is an example of how joint effort and community involvement can really establish a difference. It is an initiative to have some very important positive impact which may remain much longer in the future as hence it would continue making the VFSTR campus ever cleaner, healthier, and productive.

> by N. Praveen Sai II CSE



University Achievement ...

Transforming Wastewater into Value Vignan's Commitment to Sustainable Water Management & Zero Liquid Discharge (ZLD) Campus



Envision a campus where wastewater is not simply discharged but systematically treated and repurposed to support sustainability. At Vignan, innovative water management solutions have successfully realized this commitment. This sustainable initiative marks a significant milestone in the institute's commitment to achieving a clean, green, and selfsufficient campus since.

At Vignan's University, wastewater is not simply discarded but systematically treated and repurposed to support sustainability. To manage wastewater, a 700 KLD decentralized sewage treatment plant (STP) using a constructed wetland system has been established in collaboration with Blue Drop Enviro Consultant Company, Hyderabad. Strategically located at a lower elevation, this system recycles 700 KLD of wastewater, significantly Vignan has implemented a 700 KLD sewage treatment plant using an innovative constructed wetland system to recycle wastewater for campus sustainability. This initiative, supported by the Government of India, promotes water conservation, enhances plant growth, and aligns with the Sustainable Development Goals, setting a benchmark for eco-friendly practices in educational institutions.

contributing to sustainable water use. Every day, ~120 KL of wastewater is generated on campus. Instead of adding to environmental burdens, the institute treats and repurposes ~95 KLD for watering plants, maintaining the cricket ground, and other uses-aligning



with the Reduce, Reuse, and Recycle (RRR) concept. Recognizing these efforts, the Department of Science & Technology (DST), Government of India, has extended funding to replicate this model at Veldurthi, Macherla, Andhra Pradesh, under the TMD, Ministry of Science and Technology project. Beyond reducing groundwater consumption, the treated water is nutrient-rich, containing nitrates and phosphorus that enhance plant growth.

Vignan's 700 KLD aeration-assisted constructed wetland system is more than infrastructure-it embodies the university's dedication to Sustainable Development Goals (SDGs). By promoting responsible water use, Vignan inspires students, faculty, and staff to contribute toward zero liquid waste and a sustainable future. This initiative lays the foundation for broader environmental goals, including renewable energy expansion and optimized waste management, setting a benchmark for institutions nationwide.

This initiative represents the foundation of a broader commitment to sustainability. As the university advances, it aims to expand renewable energy initiatives, optimize waste management systems, and set a benchmark for institutions nationwide. We invite students, faculty, and sustainability advocates to collaborate in driving this transformation-where waste is not merely disposed of but efficiently repurposed into a valuable resource.

Vignan invites students, faculty, and sustainability advocates to join this transformative journey, where waste is not just managed but converted into a valuable resource for a better tomorrow.

by Dr. M. V. Raju In-charge Faculty, Assistant Professor, CEPC, VFSTR.



Event @ A Glance

THALASSEMIA AWARENESS Campaign in Guntur Makes a Difference

G untur witnessed a successful Thalassemia awareness campaign on February 18th 2025 at the Thalassemia Needs Blood Centre. Organized by the Centre and Janavaradhi Service Society, the event saw strong support from Vignan's University and its student volunteers.

The campaign focused on educating attendees about Thalassemia, emphasizing early diagnosis and treatment Dr. M.S.S. Rukmini and Dr. Vijayababu from Vignan's University highlighted the importance of community support for patients.

A major achievement was the facilitation of HLA tests, resulting in six patients finding bone marrow transplant matches. Vignan's University showcased its commitment through regular blood donation drives and ongoing awareness efforts. The campaign successfully raised awareness, provided patient support, and



fostered community engagement in the fight against Thalassemia. This successful event showed the impact of working together to fight thalassemia. By teaching people about the disease, helping patients, and encouraging donations, the campaign gave hope and real help to those in need. This awareness helps an individual to be cautious and healthy.

by D. Varsha Il Biotechnology







Grand Women's Day Celebration

ignan's University celebrated International Women's Day with enthusiasm, honoring the strength and achievements of women. The event began with a prayer song and welcome dance, followed by the presence of esteemed guests, Ms. Nirupama Tiwari, ISRO Scientist, and Dr. K. Meghana, CEO of Vignan's University.

The program featured inspiring speeches from guests and dignitaries. Usharani ma'am, Chairman of WEDC, emphasized financial independence, stating, "A truly empowered woman is one who stands on her own feet." The Registrar Commodore Dr. M. S. Raghunathan highlighted the importance of education, and the Vice-Chancellor encouraged women to break barriers. The Chief Guest, Ms. Nirupama Tiwari, shared her experiences at ISRO, saying, "The future belongs to those who dare to dream." Dr. K. Meghana, the guest of honour, motivated students to embrace entrepreneurship, urging, "Believe in your ideas, work hard, and success will follow."

A special highlight was the stalls set up by faculty and students, offering women's clothing, accessories, and Mehendi art. These stalls promoted creativity, entrepreneurship, and cultural engagement.

The celebration included felicitations, cultural performances, and prize distributions, honoring competition winners and the beautification team for their efforts. The event concluded with a vote of thanks and the national anthem, leaving everyone inspired and motivated to strive for excellence.

by Sunanda Athota III Biotechnology







Event @ A Glance

Celebrating Matri Basha Diwas A Tribute to Mother Iongues



anguage is more than just a means of communicationit shapes our identity, emotions, and cultural heritage. Matri Basha Diwas at Vignan was a heartfelt tribute to the beauty and significance of mother tongues, celebrating the diverse linguistic traditions that connect us all. The event commenced at 4:30 PM in the Sangamam Seminar Hall, with Nihari and Santhosh introducing the occasion in Telugu, English, and Hindi, emphasizing the importance of linguistic diversity. The session was presided over by Nafeesa, setting the tone for an evening filled with reflection and appreciation for native languages.

One of the highlights of the event was an inspiring speech by Howji Sir, who spoke passionately about the importance of language preservation. Sharing his experience of learning over five languages, including Telugu, Bengali, and Marathi, he encouraged students to embrace multilingualism while valuing their mother tongue. The Chairman reinforced this sentiment, urging students to cherish their linguistic heritage and understand its profound role in shaping their identity.

A captivating video presentation showcased students and faculty from different regions, each expressing



their love for their native languages. The cultural vibrance continued with a musical performance by Team Dhwani, who mesmerized the audience with a collection of multilingual songs. Following this, Team T-Crew delivered an energetic dance performance, proving that language transcends words and finds expression in music and movement. An international student from Madagascar added a unique touch to the evening by presenting a beautiful song, further emphasizing the universality of language.

The event took an emotional turn as students came forward to share personal experiences and deep connections with their mother tongues. Their heartfelt words resonated with the audience, reinforcing the significance of linguistic identity. The evening concluded with a prize distribution ceremony led by Teja, recognizing the winners of the Poster Designing and Essay Writing competitions. In the Poster Designing category, M. Sasank (3rd CSE) secured first place, followed by Sk. Nadeem (3rd BL) and Sai Teja (2nd BT). In the Essay Writing competition, P. Irfan Khan (1st CSE) won first place, with A. Jyothirmai (2nd BM) and Sk. Reshma (1st CSE) securing second and third places, respectively.

The event concluded with a vote of thanks delivered by Teja, acknowledging the efforts of students, faculty, and organizers who made the celebration memorable. A group photo with students and faculty captured the essence of the evening, serving as a reminder of the deep emotional connection we share with our mother tongues. Matri Basha Diwas was not just an event-it was a powerful celebration of identity, heritage, and the unifying power of language.



Event @ A Glance



Vignan's University celebrated National Science Day with a series of engaging events, including insightful guest lectures and academic competitions.

National Science Day, celebrated annually on February 28th, marks the discovery of the Raman Effect by the renowned Indian physicist Sir C. V. Raman. To honour this occasion, the Physics and Science departments of Vignan's University organized multiple activities to inspire students and enhance their scientific knowledge.

The day began with a guest lecture on Quantum Computing, delivered by our guest of honour, Mr. Somshaker Reddy. He highlighted the contributions of legendary scientists, including C.V. Raman and Richard P. Feynman, referencing Feynman's famous article "There's Plenty of Room at the Bottom," which laid the foundation for nanotechnology and quantum computation. He discussed fundamental concepts such as Moore's Law, quantum mechanics, entanglement, coherence, and measurementThe lecture focused on industry trends, realworld applications, and the expectations from young engineers entering the field. His insights helped students understand the relevance of MEMS in modern engineering and future career opportunities.

key principles governing quantum computing. Additionally, he explained the importance of qubits, quantum gates, and the Hadamard gate, emphasizing how quantum computers differ from classical computing. The session concluded with a dynamic Q&A session, where students actively participated, gaining valuable insights from the expert.

As part of the celebrations, two competitions were held ahead of the main event: an Oral Presentation and an Essay Writing Competition on various science-related topics. Students showcased their knowledge, analytical thinking, and presentation skills. The winners were awarded mementos, while all participants received certificates of participation from Mr. Somshaker Reddy, recognizing their efforts and enthusiasm. Following this, a second guest lecture was conducted on MEMS: Introduction, Applications, and Industry Expectations by Dr. Kanakasabapathi Subramanian, Senior Vice President at Ashok Leyland, Chennai. He introduced Micro-Electro-Mechanical Systems (MEMS) and their impact on the automotive and industrial sectors.

Vignan's University celebrated National Science Day with great enthusiasm, successfully engaging students in a variety of educational and interactive activities. The combination of expert lectures and competitions provided a perfect blend of inspiration and learning, making the event a memorable experience for all participants.

by T. Srivalli Katyayani I CSE



Cultural Fiesta -



A Tribute to the Saint-Composer

he Thyagaraja Aaradhana was held honouring the saintcomposer Tyagaraja. The importance of the event lies in the fact that it celebrates his legacy as a great Carnatic music composer and his attainment of Jeeva Samadhi. An introduction to Saint Thyagaraja, his remarkable contributions to the musical world, and his unwavering devotion to Lord Rama was given before the commencement of the event. The function was graced by

dignitaries , including Registrar Commodore Ms. Raghunathan, Dean Student Affairs Dr.M.S.S.Rukmini who took part in the illumination of the Deepa.

Students of Team Dhwani had created a heavenly atmosphere through their 'Pancharatna Kritis' and a flute performance of 'Samajavaragamana'. Along with it, a classical dance performance was performed by Vyshnavi which showcased the emotions of



Thyagaraja's music. Not only music but Thyagaraja's life lessons are priceless to everyone. To specify this point, the Theatre Arts group presented a drama on the life of Saint Thyagaraja. Their portrayal successfully conveyed the saint's struggles, dedication, and at last his spiritual journey.

The event ended on a pious note with the celebration of Saint Thyagaraja. Team Dhwani performed the traditional Mangalam, bringing an apt conclusion to the evening of musical excellence.

The Thyagaraja Aaradhana function was a huge success. It was a celebration of Saint Thyagaraja's musical excellence and unwavering devotion.

by D. Swarna Charitha III Bioinformatics



Session In Sight



Future Cyber Defenders Vignanites Participate in IIT Hyderabad Workshop

group of 14 students from the Cyber Security branch of Vignan's University had the prestigious opportunity to attend the ISEA workshop on Wireless Security 2025 at IIT Hyderabad. The five-day workshop, held from February 18 to February 22, 2025, provided handson experience and expert insights into advanced cybersecurity concepts.

The workshop featured sessions by leading cybersecurity experts, including Dr. Bheemarjuna Reddy Tamma, Dr. Maria Francis, Dr. Saurabh Kumar, Dr. Sandeep K. Shukla, and Dr. Kotaro Kataoka. Students were introduced to network security concepts, cryptography, and secure communication techniques. They worked with OpenSSL to understand encryption and decryption mechanisms, exploring protocols like Diffie-Hellman key exchange, RSA, and AES encryption.

As the workshop progressed, students delved into wireless network security and cyberattack methodologies, learning about packet sniffing using Wireshark and Wi-Fi hacking simulations with Aircrackng. They gained practical exposure to identifying vulnerabilities in wireless networks, reinforcing their understanding of WPA2/3 security protocols and penetration testing techniques. Another key area of focus was malware analysis, where students learned how to analyse malicious Android applications using



MobSF and sandboxing tools to monitor app behaviour and detect security threats.

The final day of the workshop emphasized critical infrastructure security and firewall fundamentals, providing insights into real-world cybersecurity applications, case studies, and defence mechanisms. The program concluded with a certificate distribution ceremony, recognizing the efforts and achievements of all participants.

This immersive experience proved to be a game-changer for Vignan's University students, equipping them with industry-relevant skills and a deeper understanding of real-world cybersecurity challenges. By engaging with top faculty and hands-on security tools, they have strengthened their technical expertise and confidence in tackling cyber threats. Their participation in this prestigious workshop highlights Vignan's University's commitment to fostering excellence in cybersecurity education, ensuring that students are prepared to take on the challenges of the everevolving digital landscape.

by alli

Session In Sight

Workshop on Molecular Biology & Biotechnology



he University of Hyderabad, in collaboration with VFSTR, recently hosted the Science Academies Lecture Workshop on Molecular Biology & Biotechnology. This esteemed event brought together renowned experts, faculty members, and students to delve into the latest advancements in biotechnology.

Keynote speakers, including Prof. Appa Rao Podile, Prof. Rajagopal Subramaniam, Prof. P. Kondaiah, and Prof. A. S. Raghavendra Rao, shared their insights on various aspects of biotechnology. Prof. Podile discussed the role of CRISPR-Cas9 in gene editing and agriculture, while Prof. Subramaniam emphasized the need for research-driven entrepreneurship. Prof. Kondaiah highlighted the importance of antioxidants in cancer prevention and treatment, and Prof. Rao underscored the significance of plants in science, sustainability, and environmental conservation. The workshop served as a platform for knowledge exchange, interdisciplinary collaboration, and innovation in healthcare, agriculture, and environmental sustainability. The event inspired young minds to contribute to scientific advancements and real-world problem-solving in biotechnology and molecular biology. As the world grapples with complex challenges, the importance of biotechnology and molecular biology cannot be overstated. The Science Academies Lecture Workshop has set the stage for a new era of innovation and collaboration.

by

S. Hasini

I CSE

Sessions In Sight

Bridging Academia and Industry

- Dr. K. Subramanian

ignan's University recently hosted a guest lecture on "MEMS: Introduction, Applications, and Industry Expectations," organized by the Department of Industry Relations. The lecture was delivered by Dr. Kanakasabapathi Subramanian, Senior Vice President at Ashok Leyland, Chennai, who brought valuable industry insights to the academic community.

Dr. Subramanian focused on the fundamentals of Micro-Electro-Mechanical Systems (MEMS) and their applications, particularly in the automotive and industrial sectors. He also shared the latest industry trends and the growing role of MEMS technology in various fields. The session provided students and faculty with a deeper understanding of how MEMS technology is shaping the future of engineering industries.

The event offered an interactive platform where faculty, students, and university management engaged in discussions, bridging the gap between academic learning and industry requirements. Dr. Subramanian emphasized the importance of aligning education with industry expectations and the need for young engineers to develop industry-relevant skills.

The session concluded with appreciation for Dr. Subramanian's contributions and an encouragement to foster more such collaborations, ensuring that students are well-equipped for their future careers in the

industry.

by G. Srinikhi II CSE



Exploring the Frontiers of Bioinformatics

n February 24 and 25, Dr. Madhu Babu, Executive Director of Omics NextGen Laboratories, arranged a very informative guest lecture just for the second-year Bioinformatics students. The fundamentals of Next Generation Sequencing and its many uses in crop science, genomics, and bioinformatics were well explained in the presentation. Dr. Madhu Babu opened the talk on NGS technology with an introduction, considering biological research and agricultural advancements. He elaborated on how genomic studies has revolutionized crop improvement strategies based on quality-based analysis of Oryza sativa (rice) and how implementing innovative

techniques will instigate crop production. He explained genomics and its applications, enabling students to connect sequencing technologies with molecular biology and precision agriculture. Another important part of the lecture was the importance of programming in bioinformatics, Dr. Madhu Babu emphasized the necessity of learning programming languages, especially Python, for the analysis of biological data. He demonstrated DNA and RNA analysis via Python, showing its role in efficiently handling largescale genomic datasets. The session covered primer development, Sanger sequencing, and other topics of basic knowledge on sequencing methodologies. An exam on the lecture was then conducted,

- Dr. Madhu Babu

providing actual course value to the students, on March 1st . The session provided practical insights into bioinformatics tools and sequencing techniques, promoting the development of the students and preparing them for advanced research in the field. The lecture also provided an excellent opportunity for the students to have real-world exposure to the latest developments in bioinformatics and genomics.

D. Swarna Charitha III Bioinformatics



Session In Sight

Global Career Opportunities in Food Technology

ignan's University, March 1, 2025 – The Department of Industry Relations, in collaboration with the Department of Food Technology, successfully hosted an insightful guest lecture titled "Unlocking Global Career Opportunities in Food Technology -A Roadmap for Students." The event took place at Sangamam Seminar Hall, A Block, 5th Floor, and attracted an enthusiastic audience of students eager to explore global career pathways in food technology.

The session was led by M. John Vincent A., Director of Tarus Dairytech Pvt. Ltd., and former Vice President of Animal Technology

& Dvara E Dairy Solutions. With his vast industry experience, Mr. Vincent provided students with a well-defined roadmap to achieving career success in the food technology sector on a global scale. A significant portion of the session focused on emerging trends in food technology, including advancements in food processing, sustainability, plant-based alternatives, and smart food packaging. Students gained a deeper understanding of how companies are adapting to consumer demands, regulatory changes, and sustainability challenges, all of which are shaping the future of food technology. Beyond industry trends, he emphasized the importance of interdisciplinary knowledge, technical expertise, and practical exposure through internships and research projects. Students were encouraged to develop problemsolving abilities, stay updated with industry advancements, and gain hands-on experience in laboratory settings to enhance their employability. The discussion also explored international opportunities in food innovation, where Mr.

Vincent highlighted the global demand for food technologists in research, product development, regulatory compliance, and entrepreneurship.

Mr. Vincent also provided strategic advice on research, entrepreneurship, and industry collaborations, emphasizing the role of innovation in driving industry growth. He encouraged students to pursue higher education, engage in industry partnerships, and explore entrepreneurial ventures in the food sector. Through continuous learning, research, and networking, he assured students that they could carve a meaningful career path and make valuable contributions to the global food industry.

Students actively engaged in the session, gaining invaluable knowledge and career direction from an industry expert. The lecture not only broadened their understanding of global career opportunities but also provided practical insights into the evolving field of food technology.

A heartfelt appreciation to M. John Vincent A. for sharing his expertise and inspiring the next generation of food technologists at Vignan's University. Such industry-driven knowledge sessions play a crucial role in equipping students with the tools needed for success in the everexpanding global food industry.



by Mr. Radheshyam Bajad Ph.D. Scholar, Dept. of Food Tech, VFSTR



Session In Sight

Experiential Learning in Agriculture

Rythu Nestham Foundation-Empowering Farmers, Enriching Lives



Rythu Nestham Foundation is an organization that practices organic farming and conducts weekly classes to support and bring awareness about Organic farming to farmers. It was set up in a tiny village of Kornepadu village of Vatticherukuru mandal in 2005 at Guntur district and has become a big training institute for the agriculture department. It is specialized of Agriculture, Horticulture, Poultry (Sheep and Goat farming), Sericulture etc..

Agriculture is a dynamic field that requires a blend of theoretical knowledge and practical skills. To bridge this gap, B.Sc. (Hons.) Agriculture students recently visited Rythunestham Foundation, an institution dedicated to sustainable farming practices. This educational visit provided students with handson experience and an opportunity to interact with industry experts, including Padma Shri awardee Shri Yadlapalli Venkateswara Rao Garu.

Key Learning Areas & Activities

We observed 4 different types of Desi Breeds {Gir, kangrej (Bahubali), Ongole, Punganuru}. They are rearing 50 cows in Goshala. They feed the cattle with 40 – 50 trucks of hay and 20 acres of fresh grass [Thoudu, Dhaana mixture cakes] per year. Chop cutter is used to cut fresh grass into pieces for easy consumption to cows and also to reduce wastage. From cow dung they are preparing manures and pesticides which are completely organic (without chemicals).

Vermicomposting Pit

We understood the process of organic waste conversion into nutrient-rich compost. The bottom layer of compost will be of dried cow dung (as heap) and paddy straw by cutting into pieces. Then release of earthworms can be done. Later the pit should be covered with gunny bags and watering should be given to the pit and harvest for every 60 days.

Natural Oil Processing Unit

We witnessed detailed demonstration of traditional oil extraction methods that do not involve chemical processing and learned how these methods help preserve the nutritional value of oils while promoting eco-friendly production.

Natural Fertilizer Production

Understanding the utilization of cattle dung and urine in creating organic fertilizers was another key learning point. We explored how these natural inputs, cattle dung and urine are used to make eco-friendly fertilizers in the form of Agnastram, Brahmastram, Dashyaparni kashayam, Neemastram, Mattidravanam, Jeevamrutham and Ganajeevamrutham which improve soil health and support chemical-free farming.

We were introduced to the innovative five-layer farming system in 10cents of land area, as layers they took tuber crops as first layer, later leafy vegetables, creepers as natural shaders, vegetable crops and last layer as cucurbits which optimizes land use by cultivating multiple crops in a vertical arrangement. This method enhances productivity and ensures sustainable land management.

Food Processing & Packaging Units

We received first-hand exposure to food processing and packaging techniques and witnessed value addition training programmes for making various products that add value to agricultural products and packaging which enhance shelf life and marketability like Oil separator, Groundnut Decorticator, Honey



Extractor etc.,. A real-time farm visit allowed students to explore different crops and farming techniques. Observing the application of sustainable and organic farming practices provided them with a deeper understanding of modern agricultural operations.

Drone Demonstration

One of the most exciting segments of the visit was witnessing the use of drones in precision farming. We observed how drone technology aids in farm monitoring, spraying fertilizers, and improving efficiency.

Interactive Session with Experts

The visit concluded with an engaging session where students interacted with experts on sustainable agriculture, organic farming, and modern technological interventions in agriculture. The discussions broadened their perspective on ecofriendly farming and the future of agriculture.

Future Impact

This experiential learning initiative has significantly impacted the students' approach toward agriculture. By integrating theoretical knowledge with practical applications, it has inspired them to explore eco-friendly and innovative farming techniques. The visit also highlighted the importance of technology in modern agriculture, encouraging students to embrace smart farming solutions for improved productivity and sustainability.

By engaging with real-world agricultural practices, students are better equipped to contribute to the sector with fresh ideas and practical expertise. Such initiatives will continue to play a crucial role in shaping the future of sustainable and technology-driven agriculture.



by K. Azra III B.Sc., (Hons.) Agriculture



Session In Sight



o bridge the gap between academia and industry, a workshop was conducted to mark the official launch of a new industry-supported M.Tech program in the Internet of Things (IoT). Set to commence in the 2025-26 academic year, the program aims to equip students with the necessary skills and knowledge to excel in the ever-expanding field of IoT. The workshop, held on February 25th under the theme "Unlock Your Future with IoT," provided participants with valuable insights into IoT applications, industry trends, and future opportunities.

The event was a collaborative effort between Efftronics Systems Pvt. Ltd.

and the Department of Electronics and Communication Engineering, emphasizing the importance of industry-academia partnerships in fostering innovation. Experts from both fields shared their experiences, guiding students through the IoT ecosystem, its real-world applications, and its growing impact on industries. The discussions focused on practical case studies and hands-on demonstrations, allowing participants to gain direct exposure to IoT solutions across multiple sectors.

The workshop saw active participation from students, faculty, and even members of the online tech community. A live Q&A session provided attendees with the opportunity to engage with experts, ask in-depth questions, and explore the deeper technical aspects of IoT technology. This interactive approach helped bridge theoretical knowledge with real-world applications, making the session both insightful and engaging.

As the event concluded, participants were recognized for their enthusiasm and contributions, marking the workshop as a significant milestone in technology-enabled education. With initiatives like this, the M.Tech IoT program is poised to prepare students for industry-ready roles, ensuring they are equipped to meet the challenges and opportunities of the ever-evolving IoT landscape.



G. Tapaswi VNSL II CSE



PUBLICATIONS

Gain Recognition in Prestigious Journal

S. No	Department	Paper Title	Authors	Journal Name	Indexed
1	Chemical	Optimisation of synthesis methods for high-purity magnesium titanate from different precursor materials and processing parameters	N. D. Solomon Godwin Babu, Vijetha Ponnam, Tondepu Subbaiah	Indian Chemical Engineer	Scopus
2	Chemistry	Efficient Water Oxidation at the Metal-Free, Phosphorus Acid-Functionalized Graphene Electrocatalytic Interface	Anandarup Goswami	ACS Sustainable Chemistry and Engineering	Scopus
3	CSE	Optimized truncated singular value decomposition and hybrid deep neural network with random forest for automated disease prediction	Maramreddy Umadevi	Biomedical Signal Processing and Control	Scopus
4	ECE	A novel thermal imaging-based framework for continuous ASD classification and behavior analysis using facial mood and skin temperature features	Vijayaraghavan Veeramani	Biomedical Signal Processing and Control	Scopus
5	EEE	Optimal Integration of New Technologies and Energy Sources into Radial Distribution Systems Using Fuzzy African Vulture Algorithm	Saubhagya Ranjan Biswal	Sustainability (Switzerland)	Scopus
6	Mathematics and Statistics	Performance of heat transfer in a porous square cavity filled with TiO2-H2O nanofluid by considering the impacts of magnetic field and heat absorption/generation with shape effects	N. Santhosh	International Journal of Ambient Energy	Scopus
7	Mechanical	Enhancing Solar Energy Conversion in Current PV and PVT Technologies Through the Use of Metasurface Beam Splitters: A Brief Review	Md Atiqur Rahman, Praveen Sarikonda	Plasmonics	Scopus
8	Pharmaceutical Sciences	Development and Validation of a Highly Sensitive LC-MS/MS Method for Quantification of Mutagenic N-Nitroso Desmethyl Citalopram in Drug Formulations	Bhaskar Vallamkonda, Ranadheer Reddy Challa	Separation Science Plus	Scopus
9	Physics	Influence of Copper on Structure, Magnetic Properties, and Magnetic Induction Heating Response in Co-Cu Nanoferrites	Ramakrishna Rao Akurati, Nitchal Kiran Jaladi	Journal of Superconductivity and Novel Magnetism	Scopus
10	Biotechnology	Septic Shock Inhibition by Targeting IRAK-4	Deepali Shrivastava, Dikshita Panwar, Anjani Devi Chintagunta, N. S. Sampath Kumar	National Academy of Sciences India Section B - Biological Sciences	Scopus

Faculty Research

Trichomoniasis - Research to Protect a Mother's Health

A Disease Worth Discussing

Among all sexually transmitted infections (STIs), it can be said that Trichomoniasis poses a particularly severe risk, as it primarily affects pregnant women.

A single infection endangers both the mother and the unborn child, putting two lives at risk. Though it has notable adverse effects on women, it equally affects men, often presenting as asymptomatic. Due to the lack of symptoms in many cases, infected men can transmit the infection, contributing to its spread. Trichomoniasis, caused by the Trichomonas vaginalis parasite, can affect women in a variety of ways, and its symptoms may appear early or develop later.

In the early stages of the infection, many women experience itching, irritation, or a burning sensation in the genital area, as well as an unusual vaginal discharge that may be yellow-green and have a foul odour. Pain during urination and sexual intercourse are also common symptoms. However, some women may not show any symptoms at all, especially in the early phase of the infection.

As the infection progresses, if left untreated, infection can lead to the development of Pelvic Inflammatory Disease (PID), a serious complication that can result in more severe symptoms, such as persistent pelvic or vaginal discomfort, inflammation, and an increased risk of other sexually transmitted viral infections like HPV and HIV (due to inflammation and viral shedding).



Its Role in Pregnant Women

While Trichomoniasis can affect women of all age groups, it poses a particularly serious risk when it infects pregnant women, making it a critical concern and potentially leading to adverse outcomes. In pregnant women, the infection can cause complications such as preterm birth, premature rupture of membranes, and an increased risk of delivering a baby with a low birth weight. One of the most concerning aspects of Trichomoniasis in pregnancy is that up to 50% of infected women may remain asymptomatic, meaning they do not exhibit noticeable symptoms but can still pass the infection to their babies. This asymptomatic nature makes it particularly challenging to diagnose and treat the infection early, often leading to delayed intervention and an increased risk of adverse pregnancy outcomes. Pregnant women must be aware of the potential risks and seek regular screenings and medical care to protect both their health and the health of their baby.

Why do sexually transmitted infections (STIs) pose the highest risk to India?

It is evident that in various regions of India, there exists a lack of awareness about the risks and consequences of sexually transmitted infections. Also, important to note that, there is often a significant level of cultural sensitivity, perpetuation of misconceptions and stigma surrounding the open discussion of sexually transmitted infections (STIs) like Chlamydia, Gonorrhea, Syphilis and Trichomoniasis as these are among the most common and significant STIs. Conversations about sexual health, particularly regarding infections, are often seen as taboo in various parts of India, influenced by traditional values and social norms. This can lead to reluctance to address such issues openly, with many individuals preferring to avoid or downplay the topic altogether. As a result, those experiencing early symptoms of STIs may not seek timely medical help due to the fear of judgment or social ostracization.

Research need: Trichomoniasis diagnosis.

I, Srinivasa Raju L, as the corresponding author, along with research teams from Boston University, Stockholm University (Sweden), the International Livestock Research Institute (Kenya), and Mount Kenya University, recently published our research in PLOS ONE titled "Highly Sensitive Molecular Assay Based on Identical Multi-Repeat Sequence (IMRS) Algorithm for the Detection of Trichomonas vaginalis Infection." This publication highlights the urgent need for highly sensitive and specific diagnostic tools for Trichomonas vaginalis (T. vaginalis) infections, particularly in resource-limited settings. The study introduces a novel molecular diagnostic assay based on Identical Multi-Repeat Sequence (IMRS) genome mining, designed to enhance the sensitivity and accuracy of detecting T. vaginalis. By utilizing this innovative approach, the assay offers significant improvements over traditional methods, addressing the challenges of early detection, particularly in asymptomatic infections, and paving the way for more effective diagnosis in underserved populations.

Limitations of Current diagnostic methods:

We have identified several critical aspects related to the current diagnostic approaches for Trichomonas vaginalis (T. vaginalis)

"I believe that neither a massive asteroid collision nor a fullscale nuclear war is necessary for mankind's extinction. Instead, neglecting women's health could accelerate our downfall even faster" and their inherent drawbacks. According to us, the current T. vaginalis diagnostic methods, such as wet-mount microscopy and syndromic case management recommended by the World Health Organization (WHO), are insufficient due to their low sensitivity and high rates of misdiagnosis. Syndromic management often leads to unnecessary treatments and contributes to drug resistance. Additionally, in lowresource settings, poor laboratory infrastructure and a lack of trained personnel hinder the implementation of gold-standard molecular diagnostic methods like PCR and nucleic acid amplification tests (NAATs).

Despite diagnostic challenges and high costs, advanced molecular methods like PCR are not fully sufficient:

Polymerase Chain Reaction (PCR) is a widely used diagnostic method that targets specific gene regions, such as 18S rRNA or TVK3/7, for the detection of T. vaginalis. One of its key advantages is the ability to provide rapid results, allowing for timely diagnosis and treatment. PCR can also detect T. vaginalis in non-invasive specimens, such as urine and vaginal swabs, making it a convenient option for patients. However, the method does have certain limitations, including high infrastructure costs, the possibility of false positives and negatives, and variability in results due to interstrain differences, which can affect its overall reliability.

A promising approach for early and asymptomatic Trichomoniasis diagnosis

The IMRS-based Molecular Assay proposed in the study offers a more advanced approach by utilizing genome mining to identify multirepeat sequences, providing ultrasensitive detection of T. vaginalis. This method has a detection



limit of less than 0.01 pg/µL, which surpasses the sensitivity of traditional PCR. It is particularly effective in detecting low-density infections and asymptomatic cases, making it a promising option for early diagnosis in scenarios where traditional methods might fail. This improved sensitivity positions the IMRS-based assay as a potential advancement in molecular diagnostics for T. vaginalis detection.

Future research towards an Affordable and Home-Based Trichomoniasis diagnosis:

Our team emphasizes that highly sensitive molecular diagnostics like IMRS-PCR offer a promising solution to accurately detect T. vaginalis, especially in asymptomatic infections. However, scaling up these methods in low-resource settings requires affordable alternatives, simplified protocols, and wider accessibility. Future research should focus on developing a cost-effective, field-deployable iso-IMRS-based test on a simplified device, which would enable home-based testing. This approach could provide an accessible and convenient solution for early detection, particularly in resourcelimited areas, helping to bridge the diagnostic gap.

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by



Dr. L. Srinivasa Raju Cancer Research

Student Research



ANVESHAN The Student Research Convention

Vignan's University takes immense pride in celebrating the remarkable achievement of Ms. Agilandeshwari Poopathi, Ms. Poojitha Vunnam, and Ms. Pravallika Jangam, who have secured a coveted place in the finals of ANVESHAN – The Student Research Convention after an outstanding performance at the Zonal Level. Their success is a testament to their dedication, research acumen, and innovative thinking, making them among the brightest young researchers in the country.

ANVESHAN, organized by the Association of Indian Universities (AIU) in collaboration with M.S. Ramaiah University of Applied Sciences and the Institutions Innovation Council, is a prestigious competition that fosters and recognizes promising student researchers nationwide. Competing against top talents, these three students showcased exceptional research capabilities, earning them the well-deserved opportunity to represent Vignan's University at the National Finals next month. Under the mentorship of Dr. Syed Irshaan, their research journey has been marked by dedication, perseverance, and a passion for scientific discovery. Their accomplishment not only highlights their individual brilliance but also reflects Vignan's commitment to academic excellence and innovation-driven research. Their work serves as an inspiration for fellow students, reinforcing the university's mission to nurture a culture of inquiry, creativity, and problem-solving.

The Vice Chancellor of Vignan's University, Dr. P. Nagabhushan, lauded the students for their commitment and perseverance in research, acknowledging the hard work they have put into achieving this milestone. He emphasized the university's unwavering support for fostering young minds in their pursuit of ground-breaking research.

A special appreciation goes to Prof. Dr. B. Nageswara Rao, University Coordinator for ANVESHAN, Prof. K. Venkata Rao, Dean of Research & Development, and Dr. S. Karthikeyan, Coordinator for Food Technology. Their invaluable guidance, mentorship, and encouragement have played a crucial role in motivating and shaping these young researchers, paving the way for future scientific advancements.

As these talented finalists prepare for the National Stage, Vignan's University extends its heartfelt congratulations and best wishes. Their journey is a source of immense pride for the institution, and the entire Vignan community stands behind them in support. With their unwavering determination and passion for research, they are set to bring laurels to the university and make a meaningful contribution to the scientific and academic community.

by Mr. Radheshyam Bajad Ph.D. Scholar, Dept. of Food Tech, VFSTR



Student Research

Lifileucel A Breakthrough in Advanced Melanoma Treatment

Lifileucel, recently approved by the FDA under the name Amtagvi, is a cellular immunotherapy treatment for melanoma that uses a patient's own T cells, represents an innovational advancement in the treatment of advanced melanoma.

Melanoma, an aggressive form of skin cancer, becomes particularly challenging to treat in its unresectable or metastatic stages. While immune checkpoint inhibitors like PD-1 and CTLA-4 blockers and targeted therapies such as BRAF/MEK inhibitors have improved survival rates, many patients eventually develop resistance, leaving them with limited treatment options. Lifileucel, the first-ever tumorinfiltrating lymphocyte (TIL) therapy, offers a revolutionary and personalized approach to cancer immunotherapy.

Lifileucel works by utilizing tumor-infiltrating lymphocytes, a type of immune cell naturally present in tumors that can recognize and attack cancer cells. The treatment begins with the surgical removal of a small tumor sample from the patient. The immune cells (TILs) within the tumor are then isolated and



expanded in a lab, where their numbers are increased to billions.

Following a preparatory chemotherapy regimen, these labgrown TILs are reinfused into the patient's bloodstream, where they aggressively target and destroy melanoma cells. Unlike checkpoint inhibitors, which enhance the body's existing immune response, Lifileucel provides new, tumor-specific T-cells, making it a more targeted and aggressive approach to fighting melanoma.

Clinical trials have demonstrated promising results for Lifileucel. In a Phase 2 study, 31.4% of patients experienced a significant reduction in tumor size, with 7% achieving complete remission, meaning no detectable cancer remained. The median duration of response exceeded 12 months, with some patients maintaining long-term remission. Compared to historical data, survival rates improved for patients who had failed previous treatments, offering new hope for those with limited options.

Lifileucel provides several advantages over existing treatments. It is particularly effective in patients who have developed resistance to checkpoint inhibitors, working even when PD-1 inhibitors are no longer effective. Since it uses the patient's own immune system, the risk of severe toxicity is lower compared to traditional chemotherapy. As a personalized therapy, it is tailored to each individual, increasing the likelihood of treatment success. However, despite these benefits, the treatment faces certain challenges.

Its cost and accessibility remain significant hurdles, as it requires specialized facilities and is expensive. The manufacturing process, which involves TIL extraction, expansion, and reinfusion, can take several weeks, making it less viable for critically ill patients in urgent need of treatment. Side effects, though generally manageable, may include cytokine release syndrome (CRS), fatigue, and low blood counts.

Looking ahead, researchers are exploring the potential of TIL therapy in treating other solid tumors, such as lung, cervical, and ovarian cancers. This expansion could further establish Lifileucel as a game-changing approach in cancer treatment. The FDA's approval of Lifileucel is a significant milestone in immunotherapy, providing a new lifeline for melanoma patients with limited treatment options. By utilizing the inherent power of the body's immune system, this therapy marks an important step toward personalized cancer treatment and offers hope for a future where more cancers can be effectively treated with immunebased approaches.

by Fizzah Fatma IV B.Pharmacy



In Their View

With Zimbabwe Delegates...

- Q. What are your thoughts on Vignan's education system? How has your experience been so far?
- Α. Vignan's education system is well-structured, offering a strong foundation in academics while integrating practical learning and industry exposure. The faculty is experienced and supportive, guiding students toward research and innovation. The university also emphasizes extracurricular activities, ensuring a holistic approach to education. Additionally, the university's focus on personality development and leadership skills through various clubs and student-driven initiatives ensures that graduates are well-rounded individuals prepared for global challenges.
- Q. How do you feel about Zimbabwean students showcasing their talents at Vignan?
- A. It is inspiring to see Zimbabwean students actively participating in cultural and academic events at Vignan. Their involvement in celebrations like Zimbabwe Independence Day fosters cultural exchange and strengthens the bond between students from different backgrounds. This enriches the university's diverse environment and promotes mutual learning.
- Q. What are some ways we can strengthen cultural and educational ties between our countries?
- A. Strengthening ties can be achieved through student exchange programs, collaborative research, cultural festivals, and scholarship



opportunities. Encouraging industry partnerships and internships between the two countries will also enhance career prospects for students. Additionally, universities from both nations can organize joint conferences, workshops, and mentorship programs where students and faculty exchange knowledge in various fields of study.

- Q. Would you encourage more students from your country to study at Vignan? Why?
- Α. Yes, Vignan provides quality education, research opportunities, and industry exposure in a welcoming environment. The university promotes cross-cultural experiences, helping international students feel at home while ensuring a balanced academic and social life. The strong support system for international students, including mentorship programs and student communities, helps them integrate seamlessly. With a curriculum designed to align with global industry standards, Zimbabwean students at Vignan gain valuable skills that enhance their employability worldwide.
- Q. What similarities or differences have you noticed between students from your country and those at Vignan?

- Both are ambitious and value Α education, but Zimbabwean students bring a unique storytelling tradition, while Indian students may have more early exposure to STEM fields. Zimbabwean students often follow a communitydriven approach to learning, where collaboration and shared experiences play a crucial role. Indian students, on the other hand, tend to have a strong background in technical subjects from an early age, with a focus on competitive exams.
- Q. Are there any unique cultural aspects of your country that you would like to share with others?
- Α. Zimbabwe has a strong tradition of storytelling, vibrant music and dance, and a deep respect for elders, similar to Indian culture. The country is also known for its elaborate ceremonies and festivals, such as the Mbira music celebrations, which are deeply rooted in spiritual and ancestral traditions. Food culture in Zimbabwe is rich, with dishes like sadza (a maize-based meal) being a staple, much like how rice is integral to Indian cuisine.



by G. Srinikhi II CSE

Inspirational View

A Path of Inspiration and Determination Vignan to Civil Services

- Bhavya Vattikuti

n inspiring example of how dedication, perseverance, and the right support can turn dreams into reality is the story of Bhavya Vattikuti, a graduate of Vignan University's Computer Science and Engineering batch (2012-2016). Her journey, which began at Vignan, culminated in success in the UPSC Civil Services Examination (2022), leading to her current role in the Indian Railway Management Service (IRMS).

From her early years at Vignan, Bhavya was clear about her ambitionto serve the nation through the Civil Services. A native of Guntur, she was a day scholar at Vignan's University, yet her connection to the campus extended far beyond academics. The university's vibrant environment, active student life, and



strong mentorship culture played a significant role in shaping her aspirations. Reflecting on her time there, she recalls, "Vignan gave me more than just an education; it gave me the courage to aim high and take the hardest exams in the country."

Beyond the classroom, Vignan's Civil Services Foundation Programme and interactions with distinguished speakers like Addanki Sridhar Babu, IAS & Almuni of of our university, further strengthened her resolve. These mentorship sessions, workshops, and seminars provided her with invaluable insights into the demands of the UPSC examination, giving her the confidence and clarity to pursue her goal. As Bhavya puts it, "The foundation established at Vignan was what prepared me for the challenges of the UPSC."



While Bhavya remained focused on her dream of becoming a civil servant, Vignan also provided multiple career pathways, including opportunities in the corporate sector. She actively participated in Campus Recruitment Training (CRT), securing job offers from top firms like TCS and Efftronics. However, despite these promising offers, she remained focused on her decision to pursue a career in civil service. Her academic excellence did not go unnoticed, as she was honored with the Chairman's Gold Medal for Best Outgoing Student (2016) and awarded a full merit scholarship throughout her studiestestament to her hard work and outstanding performance.

Looking back, Bhavya acknowledges the high seated role that Vignan played in her journey. "The guidance, opportunities, and encouraging atmosphere at Vignan helped me remain committed to my objective," Bhavya reflects, Now, as a dedicated Civil Servant, Bhavya continues to motivate students everywhere, demonstrating that with hard work and the right encouragement, no dream is unattainable.

by G. Priyanka I Bioinformatics

Alumni & Student Story

Farmer's Daughter, One of Five Sisters, Secures 9.5 LPA of Infosys

a humble agricultural family, is a shining example of perseverance and dedication. As the third daughter of Shri Brahmaiah Garu, a marginal farmer from Janapadu village in Piduguralla Mandal, she grew up witnessing the challenges of rural life. Despite limited resources, she pursued her dreams with unwavering determination.

Ms. M. Rajya

born into

Lakshmi,

Vignan played a crucial role in shaping her journey, providing academic guidance, access to advanced learning resources, and career-oriented training. The institution's support through skill development programs, coding workshops, and mentorship helped her refine her technical expertise and confidence. Encouraged by Vignan's placement assistance, she secured offers from Cognizant (CTS) and Infosys.

Her talent and hard work further earned her a chance to upgrade her role to an Infosys Specialist Programmer, a testament to her exceptional skills. Additionally, she received an internship offer from CTS with a ₹12,000 stipend, marking the beginning of a promising career in the IT industry. Rajya Lakshmi's journey also serves as a strong validation of Vignan's educational excellence. Her younger sister, currently in her second year at VFSTR, is following in her footsteps-a reflection of their family's immense trust in the institution. The decision to enrol a younger sibling at the same university only happens when the academic environment, opportunities, and outcomes are truly fulfilling.

Her story is not just about personal success but also about the transformative power of education in shaping lives. From a small village to securing prestigious placements, her journey exemplifies how determination, the right guidance, and institutional support can empower students to achieve remarkable success. Moreover, her ongoing efforts to upskill and aim for a higher package, from ₹3.6 LPA to ₹9.5 LPA through an upgradation test at Infosys, further highlight her relentless pursuit of excellence.

Rajya Lakshmi's achievements inspire aspiring students, proving that with the right mindset and the right platform, success is not just a possibility but a certainty.

by Dr. D. Vijay Krishna Dean, T&P



A Rising Star in Taekwondo and Academia

- Kala Jyothsna

ala Jyothsna, a young and determined Taekwondo athlete from Proddatur, Kadapa district, is making remarkable strides in both sports and academics. Currently pursuing her B.Tech in Computer Science at Vignan's University, she has excelled in Taekwondo at various levels, securing multiple district, state, and national medals. Her impressive achievements include a silver medal at the KL India Women's League in Puducherry and a gold medal in the South Zone Taekwondo competition in Chennai. Her journey in the sport reflects not just talent but years of dedication and perseverance.

From a young age, Kala Jyothsna was encouraged by her parents to embrace martial arts as a vital skill for self-defense and personal growth. She firmly believes that learning selfdefense is essential for empowering women, helping them build confidence and a sense of security in today's world. Beyond her passion for sports, she has consistently balanced her academic pursuits with athletic excellence, proving that determination and effective time management can help one succeed in multiple domains.

Recognizing her outstanding talent and dedication, Vignan's University has extended significant support, easing her financial burden by reducing tuition fees and covering competition expenses. This institutional backing has allowed her to focus entirely on her training and academic growth, providing her with the resources needed to excel in both fields. With relentless dedication, she dreams of representing India at the Olympics, bringing pride and global recognition to the country. Her journey is a testament to hard work, perseverance, and the power of believing in one's dreams. Through her achievements, she continues to

inspire young athletes and aspiring martial artists, proving that with passion and support, any goal is within reach.

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V. Sri Teja

II CSE



ResilientShield - A Trusted Armor in the Cyber Battlefield

Recognizing the urgent need of providing cybersafe solutions to the world where the digital threats are evolving at an alarming pace, ResilientShield Cyber Solutions was founded on August 8, 2024, in Andhra Pradesh, by a dedicated team of students determined to strengthen digital security.

he company stands as a trusted shield in the cyber battlefield, providing innovative solutions to protect individuals, businesses, and institutions from cyber risks.

At the heart of ResilientShield are its visionary founders, Shanmukha Sai Kumar Reddy Kovuri and Sri Sai Deepak Reddy Arekuti, who share a deep passion for cybersecurity. One of the co-founders gained firsthand experience during a GPCSSI internship, working alongside the Gurugram Cyber Cell to tackle complex cybersecurity challenges, including digital forensics and realtime threat detection. This exposure, combined with their technical expertise, laid the foundation for a company committed to delivering cutting-edge cybersecurity solutions and expert consultations.

Unlike many cybersecurity firms that focus solely on training, ResilientShield is actively involved in solving real-world cybercrime cases. Their skilled team, comprising ethical hackers, forensic analysts, and security consultants, has successfully assisted law enforcement agencies and private clients in recovering hacked devices, retrieving lost data, and investigating financial fraud. A recent milestone involved restoring a victim's compromised WhatsApp account within two days, highlighting the team's efficiency in digital recovery. In another case, they helped a business regain access to critical data on a compromised mobile device, ensuring minimal disruption to operations. As the company

Resilient Shield Cyber Solutions stands as a testament to young innovators driving realworld cybersecurity impact-solving cybercrime cases, restoring hacked data, and collaborating with law enforcement, all while shaping the future of digital security.

gained momentum, ResilientShield expanded its influence through key industry collaborations. With support from Vignan's Technology Business Incubator (Vignan TBI), the company has established connections with law enforcement agencies, industry leaders, and government officials. Their expertise has been instrumental in cyber investigations and security efforts, particularly through collaborations with Palnadu's Superintendent of Police (SP) and other security agencies.

The company has also taken a proactive role in shaping the future of cybersecurity education by training aspiring professionals. Through partnerships with Ramachandra College of Engineering, SVCE Tirupati, VIT-AP, and R.V.R & J.C College of Engineering, ResilientShield has conducted workshops and certification programs in Ethical Hacking, Penetration Testing,



Digital Forensics, and Social Engineering Awareness. Recently, with the backing of Vignan's TBI, they conducted an exclusive cybersecurity awareness session at Chalapathi Institute of Engineering and Technology (CIET), educating students on cyber threat prevention and ethical hacking techniques.

What started as a cybersecurity training provider has now evolved into a recognized industry leader. ResilientShield is an official sponsor at major tech events like Tech Spark, where its experts share valuable insights on cybersecurity strategies and ethical hacking techniques. The company remains ahead of cyber threats through continuous research, progressive technologies, and collaborations with top security experts.

At ResilientShield Cyber Solutions, the mission is clear-to drive cybersecurity innovation and protect businesses and individuals from digital threats. With a strong foundation in expertise, innovation, and strategic partnerships, the company continues to shape the future of cybersecurity. Whether through consultations, training, or security assessments, ResilientShield remains committed to ensuring that organizations and individuals stay one step ahead in the ever-changing cyber landscape.

by K. Shanmukha Sai Kumar Reddy IV CSE-CS



NTR Vignan Library Where Technology Meets Tradition in Education

NTR VIGNAN LIBRARY



యన్. టి. ఆర్. విజ్ఞాన్ లైబ్రలి

The NTR Vignan Library celebrated its annual day on 20 February 2025, which is indeed important to the library and the institution. This library was established 20 years before that date and is now a flourishing center of knowledge, learning, and technological facilities for students and faculty.

The grand event was inaugurated by Sri Dr. Dasari Narayana Rao, the Hon'ble Union Minister for Coal and Mines in the Government of India, Not just a distinguished politician but also an accomplished Telugu film actor, Dasari Narayana Rao brought further glamour and publicity to this event. His participation in the event definitely validated the education and cultural aspects in shaping the future of the nation.

There were many distinguished guests present, including the Dean of Technology Development, who came to support the role of the library in academic progress. One of the most touching moments of the celebration was when students participated in lighting the lamp, a term of symbolic gesture in commemoration of the occasion and in tribute to the legendary actor and politician Sri Nandamuri Taraka Rama Rao (NTR). The library named after NTR is still keeping up his glorious legacy by nurturing a culture of knowledge in society.

The library also organizes an extraordinary monthly competition called "Turning Pages", wherein students participate by reviewing books. The idea behind this competition is to inculcate reading habits among students and help them develop an affinity for reading books. On the other hand, it serves the dual purpose of the critical thinking as well as presentation skills of students while availing them the opportunity to interact with books beyond the pages.





by G. Tapaswi VNSL II CSE

Vintalina The Revolutionary Hair Oil Infused With Spirulina

Spirulina (Arthrospira platensis) is a nutrient-rich blue-green algae known for its high protein, vitamin, and antioxidant content. Spirulina hair oil is formulated to promote scalp health, strengthen hair, and address common hair issues such as dandruff, hair fall, and premature greying. The oil contains essential ingredients such as Spirulina extract, coconut oil, castor oil, olive oil, and amla extract, each playing a significant role in enhancing hair growth and nourishment. Coconut oil deeply moisturizes the scalp, castor oil strengthens hair follicles, and amla extract prevents premature greying while improving pigmentation. Additionally, the inclusion of essential oils such as Rosemary, Tea tree, or Lavender enhances blood circulation in the scalp and provides antimicrobial benefits.

The bioactive compounds in Spirulina, such as phycocyanin and beta-carotene, aid in hair cell regeneration and provide antioxidant protection. The rich presence of B vitamins and iron enhances oxygen supply to the hair follicles, thereby reducing thinning and stimulating growth. Spirulina's ability to combat oxidative stress helps prevent premature ageing of the hair. Regular use of Spirulina hair oil strengthens hair roots, reduces breakage, prevents dandruff, and promotes a naturally healthy shine. For optimal results, the oil should be massaged gently onto the scalp and left for at least an hour or overnight before



washing it off with a mild herbal shampoo. The increasing demand for organic and natural hair care products has positioned Spirulina hair oil as a sustainable and costeffective alternative to synthetic hair oils. Its high bioavailability ensures that essential nutrients are effectively absorbed, making it an ideal choice for consumers seeking eco-friendly and parabenfree hair care solutions. The study found that Unlike conventional ingredients, the product leverages the unique properties of freshwater algae known for their enhanced absorption and utilization by the body, maximizing the effectiveness of the bioactive compounds. The use of 100% natural extracts and the absence of parabens and synthetic additives set this invention apart from conventional chemicalbased personal care products, catering to the demand for safer and eco-friendlier alternatives. These combined features create a distinct, innovative solution in the nutraceutical and personal care markets, addressing unmet consumer needs with natural, effective, and sustainable products.

by Dr. K.Sankaran Assistant Professor, Dept.of. BT, VFSTR



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"Believe you can and you're halfway there." - Theodore Roosevelt

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From the readers

It's really exciting to see Vignan achieve the AA Grade in the SWAYAM NPTEL ranking and introduce amazing student suppoting initiatives like the Drone Centre of Excellence and Space Research Partnerships. These opportunities give us hands-on experience with new technology, making learning more fun and practical.

I also love how the university while being innovative, is doing its part to focus on green technology and healthcare advancements to safe guard the world for our future generations. It's great to be part of a place that not only helps us do well in academics but also encourages us to think about innovation and sustainability.

Looking forward to reading more inspiring

stories in the next editions!



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