राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission

Certificate of Accreditation

The Executive Committee of the
National Assessment and Accreditation Council
on the recommendation of the duly appointed
Peer Team is pleased to declare the
Vignan's Foundation for Science, Technology and Research
(Deemed to be University u/s 3 of the UGC Act, 1956)
Vadlamudi, Dist. Guntur, Andhra Pradesh as

Accredited

with CGPA of 3.02 on four point scale
at A grade
valid up to November 15, 2020

This is subject to the result of the WP No. 142 of 2006 of the Hon'ble Supreme Court of India

Date : November 16, 2015

Director

EC/71/A&A/1.1

SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

VIGNAN'S FOUNDATION FOR SCIENCE TECHNOLOGY AND RESEARCH

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SSR SUBMITTED DATE: 10-02-2021

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

February 2021

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Vignan's Foundation for Science, Technology, and Research (VFSTR), which is the flagship of the Vignan Group, was established in the year 2008 as a Deemed to be University, having evolved from Vignan's Engineering College (NAAC 'A' grade and NBA accreditation for five programs).

Vignan Group of Institutions with a current student base of 50,000 students has been a pioneer in the field of education for more than four decades, serving all levels of education. In fact, it is the first group to revolutionize education at the +2 stage in A.P and Telangana.

Located in rural environs of Guntur district, A.P, VFSTR has 50% of its students hailing from surrounding agricultural region, most of them drawn from socio-economically backward families, for whom the institution is a great boon for quality higher education. VFSTR has already been addressing one of the primary objectives of NEP-2020, viz., Equity, to provide quality higher education to students of rural and agricultural societies.

VFSTR has completed the first cycle of NAAC with 'A' grade in 2015, secured UGC(12B) status in 2020, NBA accreditation for five programs in 2020, and ISO 9001:2015 certification. VFSTR has been maintaining NIRF ranking of around 100 in the last five years and is recognized as a Research Centre by DSIR.

In the last five years, VFSTR has been developing in multiple ways:

- **Curriculum is continuously reviewed and revised once in three years in tune with industry requirements.**
- **Teaching-learning process is made effective with an outcome-based approach leading to consistent academic results, with pass percentage of more than 90% and placements in the range of 75-80%**
- **Substantial increase in the number of research publications to the tune of 2054 papers with *h*-index of 27 and a good number of funded projects.**

- **Infrastructure growth of 40-50% catering to the manifold university activities towards the all-round development of students, including their physical well-being.**
- **Committed leadership with a decentralized style of functioning following principles of inclusiveness in a transparent manner.**

The credibility of the institution is reflected in its ability to attract a good number of admissions consistently over the last five years.

Vision

To evolve into a center of excellence in Science and Technology through creative and innovative practices in teaching-learning, towards promoting academic achievement and research excellence to produce internationally accepted, competitive, and world-class professionals who are psychologically strong and emotionally balanced imbued with social consciousness and ethical values.

Mission

To provide high-quality academic programs,training activities,research facilities and opportunities supported by continuous industry-institute interaction aimed at promoting employability, entrepreneurship, leadership, and research aptitude among students and contribute to the economic and technological development of the region, state, and nation.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

1.Eminent leadership:

- **The Chairman of Vignan Group, Dr. L. Rathaiah is a pioneer and Visionary educationist who has rich experience of teaching and**

administration of more than 40 years.

- **Chancellor of VFSTR, Prof. K. Ramamurthy Naidu is a renowned educationist who served two terms in UGC as a member.**
- **Vice-Chancellor of VFSTR, Dr. M.Y.S. Prasad, Padma Shree Awardee, is a former distinguished space scientist of ISRO with 40 years of experience.**
- **The Board of Management consists of illustrious and renowned members like Prof.H.Devaraj, former Vice-Chairman of UGC, Prof.B.V.R.Chowdary, advisor of NTU Singapore, and Dr.T.S.Rao, Former Advisor, DBT, Govt. of India.**
- **Rich experienced people from academia and industry like Prof.Venkata Rami Reddy and Dr.Krishna Ella are members in PMB.**
- **National level experts with diversified research experience like Dr.Prahlada, Former Director General, DRDO, Dr. S. Rangarajan, former CEO of World Space USA, Dr. Yagnanarayana, Professor Emeritus in CSE, IIIT (Hyderabad) and Dr.Malakondaiah, Former DGP, A.P.**

These distinguished luminaries are the think-tank of the institution. They are actively involved and guide the institution in its development.

2.Committed and Dedicated faculty:

A fine blend of young and experienced faculty are working with commitment for the growth and development of the institution for the past 10 years. Senior faculty mentor new faculty by sharing their experience, and contribute significantly for the growth of the institute.

3.Excellent infrastructure facilities:

Excellent infrastructure of VFSTR provides a supportive and healthy environment, to aid and enable students and faculty in their multifarious academic, research and other activities.

4.Scholarships are offered to meritorious, and students from weaker sections to the tune of Rs.17 Crores per year.

5.Strong system of counselling and mentoring to help young students resolve their personal, emotional and psychological issues.

6.Special program on English is enabling students greatly and paying rich dividends in making students communicative, confident and employable professionals.

7.Inclusiveness is the part and parcel of the organizational culture practiced scrupulously while framing policies and executing various activities, resulting in optimum contribution from all the stakeholders.

Institutional Weakness

- **Locational Disadvantage: Promotion of research and consultancy activities is a challenging task due to the location, owing to lack of research institutes and supportive ecosystem, unlike in metropolitan cities.**
- **Establishment of industry on the campus is a difficult and daunting proposition because of its location and lack of entrepreneurial culture of the region.**
- **Attracting faculty from metropolitan cities due to location of the institution.**
- **Agricultural economy being stagnant in the region limits the potential expansion of the institute.**
- **Inviting foreign faculty and also improving admissions of international students is a difficult task because of limited Air connectivity to the institute.**
- **Strategies to overcome the weakness:**
- **As IT sector is booming, efforts are on to overcome locational disadvantage by seeking collaboration and strategic tie-up with some industries.**

- **Institution has tied-up with some nationalized banks to offer educational loans in easy terms in the campus itself by providing collateral security.**
- **Institution has revised its recruitment policy to offer more attractive salaries and better facilities/amenities on par with the institutions in metropolitan cities.**
- **Institution has established an impressive Guest House for use by guests and faculty.**
- **Institution has an understanding with universities in South Korea such as Korea-Tech, Soongsil University, Hannam University etc., and other leading institutions globally like NTU, Singapore, Ecole Centrale, France, etc., to invite faculty to deliver lectures and collaborate on research.**

Institutional Opportunity

- **Non-availability of quality HEI in the neighborhood, and as the youth of this region are highly aspirational, provides VFSTR with a big opportunity to fill the void.**
- **Owing to the demand for professional courses, immense scope exists for an increase in student intake.**
- **There is a huge potential for VFSTR to explore research in the areas of food technology, agriculture engineering, and textile engineering, the primary occupation of the region being Agriculture, Dairy, Poultry, Aquaculture,Spinning and Weaving.**
- **Academic policy of VFSTR enables students to avail opportunities for gaining work experience even while on campus resulting in higher placement success with good packages.**
- **Owing to the grant of 12(B) status, VFSTR can avail opportunities for research funding under various central schemes.**
- **In the light of the New Agricultural Policy, VFSTR enjoys greater scope for expanding its consultancy activities in the areas of Biotechnology,**

Food Technology and Agriculture Engineering.

- **Opportunities exist for pursuing societal-centric projects for uplifting rural areas with technology interventions like production of Biogas, Waste Water Treatment, Solid Waste Management, Soil Testing, Mapping of soil types to crops, etc.**
- **Extending knowledge and expertise to the neighborhood community on IoT, computer literacy, and quality education.**

Institutional Challenge

- **Difficulty in recruiting faculty with Ph.D qualification and research experience is a challenge, particularly in the disciplines of Computer Science Engineering and other emerging areas.**
- **Admissions of students from other states and international students owing to locational disadvantage and lack of Air-connectivity.**
- **Collaborating with industry for faculty training, research and consultancy due to limited industries in the region.**
- **Being a self-financed institution, resource mobilization from other sources is a challenge.**
- **Sustaining start-ups and entrepreneurial activities are difficult due to preferences of students and parents for secure placements.**

Strategies of the institution to convert the challenges into opportunities:

- **Attract experienced faculty with Ph.D qualification in CSE and other emerging areas by offering compensation and better facilities on par with industry.**
- **Liaise with embassies of different countries to invite international students for study in VFSTR. In addition, participate in educational fairs for raising awareness about the institution to attract students from other parts of the country and abroad.**

- **Support faculty with paid leave and financial assistance to undertake industry training in metropolitan cities/ region. Forming research clusters through collaborations with industries/ other premier institutions for pursuing research and consultancy projects.**
- **Securing funding for research projects from various funding agencies (govt. and non-govt.) and exploring opportunities for consultancy by reaching out to industries.**
- **Carry out major curricular revisions to hybridize traditional courses through introduction of inter-disciplinary and computer related courses (like IoT, Machine Learning, AI etc.) for enhancing job opportunities.**
- **Conduct regular idea carnivals and boot camps to generate awareness among budding entrepreneurs along with financial and infrastructure support.**

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

- **Curricula continuously reviewed, and periodical revisions carried out, once every 3 years. The curriculum of all programs was revised twice in the last 5 years (UG Engineering programs in 2016 & 2019).**
- **Curriculum designed to cater to local as well as global needs. Agriculture engineering, Food technology, Biotechnology, Textile technology, etc., introduced to meet local needs, besides regular courses like CSE, ECE, EEE, etc.**
- **Special English courses introduced in first and second years of study with certification from Cambridge University**
- **A distinctive feature of the recent curriculum is the allotment of 14% of credits for Projects, which are introduced for fostering skills, in line with 'Skill India' Mission.**
- **The curriculum is enriched with value-added, inter-disciplinary, and industry relevant courses on advanced technologies.**

- **Semester-long industry internship to promote experiential learning.**
- **Credit-based physical fitness course introduced in tune with “Fit-India” Mission.**
- **Humanities and Social Science courses offered to promote value system, citizenship, environmental consciousness, ethical conduct, gender sensitivity, etc. (proposed by NEP-2020).**
- **Curriculum made flexible, choice-based through offering minor courses, and extending the degree completion period.**
- **Feedback is taken periodically, once a year from all the stakeholders (students, alumni, employers, faculty, parents) prior to curriculum revision.**

Teaching-learning and Evaluation

- **Great demand for admission into the institution with average of 35,000 applications every year at a demand ratio of 14.46, Only 5 to 6% of applicants (average of 1700 students) obtain admissions in a competitive manner.**
- **Merit-based admissions through V-SAT, JEE, EAMCET, ICET, and PGCET.**
- **About 98% of students admitted with more than 70% marks in the qualifying exam.**
- **60% of students hail from Agricultural and Economically Backward Community (EBC).**
- **Rigorous policy for recruiting quality faculty and institution maintains FSR of 1:15, with an average of 479 faculty members /year, of which 31% are Ph.D. holders.**
- **Candidates with Ph.D./ PG qualification recruited from premier institutions like IITs and NITs, for faculty positions, maintaining healthy diversity of more than 48% from other states.**

- **Institution conducts FOPs and periodical FDPs for the faculty covering institutional philosophy, systems, pedagogy, counselling, e-content preparation, etc.**
- **A defined system to verify the quality of content and lesson plans prepared by faculty, prior to commencement of each semester.**
- **Experiential and participative learning encouraged through skill development programs, internships, minor and major projects.**
- **Well-defined Course Outcomes, Program Outcomes, and PSOs disseminated to the students and faculty through different ways apart from publishing in the website.**
- **Regular feedback collected on quality of teaching, at least 2-3 times/semester**
- **A time-tested system to identify advanced learners and slow learners.**
- **Hand-holding of the slow-learners with extra classes, counselling, peer mentors, etc.**
- **Encouragement to advanced learners for acquiring additional knowledge through online courses(NPTEL, Coursera etc.),participation in Hackathons, IEEE student conferences,and National level youth fests, etc.**
- **All administrative procedures, from student admissions to award of degrees, are fully automated.**
- **Declaration of examination results within 10 days on completion of exams.**
- **Rigorous evaluation process with complete confidentiality and proctoring to eliminate malpractices, with transparency maintained post-exam.**
- **Principles of OBE followed for setting question papers, and attainments of COs, POs, and PSOs are in constant focus.**

Research, Innovations and Extension

- **Great strides made in research through concerted efforts in R&D activities.**
- **An enabling environment provided with well laid down research policy and constitution of a University Research Board (URB) for advice on optimum utilization of existing research facilities.**
- **Four Centers of Excellence and 15 Research Centers created with state-of-the-art research equipment.**
- **10% of faculty earmarked for research with minimum teaching load.**
- **Fellowship for full-time Ph.D. scholars.**
- **Incubation center and E-cell created to enable Startups.**
- **102 activities organized on IPR and Research methodology etc.**
- **Four patents already granted (two of them being US patents) and 28 patents filed and published from the institute.**
- **Seed money and financial support worth Rs.521 lakhs provided to faculty and students respectively during the last five years.**
- **Total research publications during the last five years is 2054, with an average of 4.3 papers per faculty in SCI/Scopus journals.7308 citations improved *h*-index of the institution to 27.**
- **Incentives offered for quality research publications and projects secured to the tune of Rs.80 lakhs in the last five years.**
- **33 national and 10 international conferences organized over the last 5 years.**
- **An average of Rs.110 lakhs worth of Projects approved by government agencies like DST/DBT etc. Currently 30 proposals worth Rs.3547 lakhs submitted and are under review.**
- **An average of Rs.61 lakhs worth of Projects approved by Non-Government agencies.**

- **Consultancy activities to the tune of Rs.445.36 Lakhs are taken up over the last five years.**
- **Around 50 extension activities taken up every year involving faculty and students with technology interventions to improve productivity in the neighboring societies.**
- **MoUs with 125 industries and institutes for collaborative research and student internships.**

Infrastructure and Learning Resources

- **Lush green, eco-friendly 42.86 acre campus with a built-up area of 1,32,739 Sq.m**
- **Average area per student 12.5 Sq.m Vs 9 Sq.m as per AICTE.**
- **127 Well ventilated, ICT enabled classrooms, 80 classrooms with smart/ glass/ MI boards.**
- **114 well-equipped laboratories.**
- **Average classroom area of 90 Sq.m vs 66 Sq.m as per AICTE.**
- **Sports and games facilities in an area of 43,580 Sq.m, well maintained by 3 regular PDs, 9 coaches, and 10 assistants.**
- **Nine auditoriums, air-conditioned with audio and video systems for cultural events.**
- **Five hostels available for boys and girls with large dining halls, recreation halls, reading rooms, Gym and health centres in an area of 35,150 Sq.m. to accommodate 2200 students.**
- **Bank facility, transport facility, and guesthouse with modern facilities.**

- **24x7 power facility with the backup of 3 DG sets and 1MW Solar power plant.**
- **Fully automated Central Library with built-up area of 5902 Sq.m.**
- **101651 volumes of books covering all branches; 6748 e-journals.**
- **Rs.5 Crores spent on purchase of books, journals, and digital content.**
- **Average of 1802 students and 104 faculty utilize the library every day.**

- **IT policy for creating, utilizing, maintaining, and augmenting IT systems for academic and research activities. Annual expenditure of Rs.1Crore on IT infrastructure.**
- **1GBPS internet connectivity, and 60 MBPS backup with more than 250 Wi-Fi access points.**

- **2630 computers enabled the campus into a highly digitized campus with automated administrative and academic processes, including computer labs of various departments.**
- **Preventive maintenance procedure with AMCs; 30-40% of maintenance through in-house personnel.**

Student Support and Progression

- **Highly secure and ragging free campus.**
- **High emphasis on merit through Entry-level scholarships (based on merit in JEE, EAMCET, VSAT) and continuing scholarships to the tune of Rs.17 Crores per year. 45% of students are beneficiaries of the scheme.**
- **Additional academic avenues provided for both advanced and slow learners.**
- **A robust system of counselling to address academic, emotional and psychological issues of students to make them socially conscious citizens.**

- **An average amount of Rs.154 Lakhs spent for student support activities.**
- **In last five batches, about 90% of students completed their course within stipulated time.**
- **75-80% of students secure campus placements; 10-12% go for higher education.**
- **More than 600 prizes bagged at various sports and cultural competitions.**
- **With strong backing from the institute, 18% of students took up extra courses like NPTEL, Coursera etc.**
- **Excellent skill development labs improve the academic outcomes of the students as a process of holistic development.**
- **98% students qualified in Cambridge PET exam, of which 20-30% students qualified in Cambridge BEC exam.**
- **Cambridge university accorded recognition to VFSTR as one of its top five English language training and examination centre in South Asia.**
- **Student Activity Council with 80-member body to execute various events and monitor student welfare measures.**
- **Student representatives made part of various committees like Course Monitoring Committee, Srujanankura & Mahotsav Committees, Anti Ragging Committee, Women Empowerment and Development Cell, Entrepreneurship Cell, Sports Committee etc.**
- **Student organizers play a key role along with faculty in redressing grievances of students**
- **Optional cultural and extra-curricular activities on Saturdays elicit inherent student talent.**
- **Special coaching given for competitive exams such as Civil Services, GATE, TOEFL etc.**
- **Alumni Association Chapters in different cities provide feedback, and distinguished alumni invited for special events and invited talks.**

Governance, Leadership and Management

- **Vision of Institute developed with a holistic view of creating future citizens with strengths in professional, personal, and societal areas in a well thought out manner.**
- **Visionary leadership, decentralized governance structure, and participative management styles to realize the Vision and Mission of Institute.**
- **The apex bodies constituted with a judicious mix of industry experts, research scientists and academicians from reputed organizations.**
- **Chancellor, Prof. K. Rama Murthy Naidu is an eminent academician and two-term member of UGC.**
- **Vice-Chancellor, Dr. MYS Prasad (Padma Shree awardee) is a Distinguished Scientist and former Director of ISRO**
- **All positions and roles are well defined in the administrative manual.**
- **All institutional activities are conducted through participative approach by holding weekly DDH (Deans, Directors, HoDs) and department level meetings, and through 22 committees where students and faculty are duly represented.**
- **Strategic plan developed with short term, medium term, and long term goals, and is being implemented in a planned manner.**
- **Policies proposed by apex bodies implemented like:**

Scholarships for meritorious students

Digital content preparation

10% faculty earmarked for research.

New Programs- AI, Robotics, Cyber security, CSBS

- **Systematic appraisal system for teaching and non-teaching staff, and autonomy to faculty.**
- **Implementation of various welfare schemes for staff.**
- **Sound financial management with statutory external audits, and internal audits carried out at periodic intervals.**
- **Annual audit reports are posted on the website.**
- **IQAC continuously monitors all the academic and administrative processes, and takes care of all accreditations and surveys.**

Institutional Values and Best Practices

- **Management is committed to realize institutional Vision and Mission through participative approach, following the principle of inclusiveness while maintaining transparency at all levels.**
- **Gender equity maintained both at student and faculty levels, and a non-discriminatory and safe environment prevails for girls and women in the campus.**
- **The environmental policy of the institute is implemented in both letter and spirit to make it a clean and green campus.**
- **Renewable energy initiatives like 1MW solar power system, and Biogas plant.**
- **Green and Energy audits conducted regularly.**
- **Ethics and values cultivated through programs like environmental day, Gandhi Jayanthi etc., and cultural festivals like Christmas, Ramzan, Pongal etc.**
- **All executives, faculty, staff and students enjoy full autonomy to contribute to the effective growth of the institute.**
- **Well-defined code of conduct for students and staff.**

- **Disabled-friendly access in buildings.**

Institution adopted and evolved several best practices, some are as follows:

- **FDP**
- **Care for Health and Fitness of the students**
- **Special Cambridge program on English language**
- **Counseling system**
- **Parents' felicitation**
- **Indianization of convocation**
- **Free lunch for faculty**

The following 2 practices have been most impactful:

Faculty Development Programme is being practiced in the following ways :

- **Faculty Orientation Programs**
- **FDP by the external agencies**
- **Faculty development through exposure to the industry**
- **Faculty Enrichment Programs**

Care for Health and Fitness of the students: Credit based Physical Fitness and health course much earlier to call of "FIT INDIA".

- **Percentage of students with health aberrations reduced from 40% to 10% and students have gained awareness of health of lifestyle.**

Distinctiveness of the institution

- **Access to quality higher education to the rural society leading to regional development.**

NAAC

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the University	
Name	VIGNAN'S FOUNDATION FOR SCIENCE TECHNOLOGY AND RESEARCH
Address	Chebrolu Mandal, Vadlamudi
City	Guntur
State	Andhra Pradesh
Pin	522213
Website	www.vignan.ac.in

Contacts for Communication					
Designation	**Name**	**Telephone with STD Code**	**Mobile**	**Fax**	**Email**
Vice Chancellor	M.y.s. Prasad	0863-2344710	9490143060	0863-2344707	vc@vignan.ac.in
IQAC / CIQA coordinator	M . Ramakrishna	0863-2347706	9346993999	0863-2344706	dean_iqac@vignan.ac.in

Nature of University	
Nature of University	Deemed University

Type of University	
Type of University	Unitary

Establishment Details	
Establishment Date of the University	19-12-2008
Status Prior to Establishment,If applicable	

Recognition Details		
Date of Recognition as a University by UGC or Any Other National Agency :		
Under Section	**Date**	**View Document**
2f of UGC	19-12-2008	View Document
12B of UGC	10-01-2020	View Document

University with Potential for Excellence	
Is the University Recognised as a University with Potential for Excellence (UPE) by the UGC?	No

Location, Area and Activity of Campus							
Campus Type	**Address**	**Location***	**Campus Area in Acres**	**Built up Area in sq.mts.**	**Programmes Offered**	**Date of Establishment**	**Date of Recognition by UGC/MHRD**
Main campus	Chebrolu Mandal, Vadlamudi	Rural	42.86	132739	UG,PG, Ph.D		

2.2 ACADEMIC INFORMATION

Furnish the Details of Colleges of University

Type Of Colleges	Numbers
Constituent Colleges	0
Affiliated Colleges	0
Colleges Under 2(f)	0
Colleges Under 2(f) and 12B	0
NAAC Accredited Colleges	0
Colleges with Potential for Excellence(UGC)	0
Autonomous Colleges	0
Colleges with Postgraduate Departments	0
Colleges with Research Departments	0
University Recognized Research Institutes/Centers	0

Is the University Offering any Programmes Recognised by any Statutory Regulatory Authority (SRA)	: Yes

SRA program	Document
AICTE	103260_5524_1_1605763242.pdf
PCI	103260_5524_6_1605673596.pdf

Details Of Teaching & Non-Teaching Staff Of University

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned				64				70				383
Recruited	53	11	0	64	48	22	0	70	279	104	0	383
Yet to Recruit				0				0				0
On Contract	19	1	0	20	0	0	0	0	0	0	0	0

Non-Teaching Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned				147
Recruited	113	34	0	147
Yet to Recruit				0
On Contract	172	145	0	317

Technical Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned				84
Recruited	68	16	0	84
Yet to Recruit				0
On Contract	0	0	0	0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	53	11	0	46	21	0	55	20	0	206
M.Phil.	0	0	0	0	0	0	9	4	0	13
PG	0	0	0	2	1	0	215	80	0	298

Temporary Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	19	1	0	0	0	0	0	0	0	20
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Distinguished Academicians Appointed As

	Male	**Female**	**Others**	**Total**
Emeritus Professor	0	0	0	0
Adjunct Professor	18	0	0	18
Visiting Professor	0	0	0	0

Chairs Instituted by the University

Sl.No	**Name of the Department**	**Name of the Chair**	**Name of the Sponsor Organisation/Agency**
1	NIL	NIL	NIL

Provide the Following Details of Students Enrolled in the University During the Current Academic Year

Programme		From the State Where University is Located	From Other States of India	NRI Students	Foreign Students	Total
Doctoral (Ph.D)	Male	63	0	0	0	63
	Female	64	0	0	0	64
	Others	0	0	0	0	0
PG	Male	97	1	0	3	101
	Female	106	2	0	1	109
	Others	0	0	0	0	0
UG	Male	777	98	0	20	895
	Female	690	53	0	3	746
	Others	0	0	0	0	0

Does the University offer any Integrated Programmes?	No

Details of UGC Human Resource Development Centre, If applicable

Year of Establishment	01-01-1970
Number of UGC Orientation Programmes	0
Number of UGC Refresher Course	0
Number of University's own Programmes	0
Total Number of Programmes Conducted (last five years)	0

Accreditation Details

Cycle Info	Accreditation	Grade	CGPA	Upload Peer Team Report
Cycle 1	Accreditation	3.02	A	NAAC Peer Team Report.pdf

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Applied Engineering	View Document
Biotechnology	View Document
Chemical Engineering	View Document
Civil Engineering	View Document
Computer Science And Engineering	View Document
Electrical And Electronics Engineering	View Document
Electronics And Communication Engineering	View Document
Information Technology	View Document
Management Studies	View Document
Mechanical Engineering	View Document
Pharmaceutical Sciences	View Document
Sciences And Humanities	View Document

NAAC

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2019-20	2018-19	2017-18	2016-17	2015-16
44	44	43	40	40

File Description	Document
Institutional data in prescribed format	View Document

1.2

Number of departments offering academic programmes

Response: 12

2 Students

2.1

Number of students year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
6828	6759	6207	5412	4846

File Description	Document
Institutional data in prescribed format	View Document

2.2

Number of outgoing / final year students year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
1895	1655	1161	1201	1277

File Description	Document
Institutional data in prescribed format	View Document

2.3

Number of students appeared in the University examination year-wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
6662	6581	6048	5288	4729

File Description	Document
Institutional data in prescribed format	View Document

2.4

Number of revaluation applications year-wise during the last 5 years

2019-20	2018-19	2017-18	2016-17	2015-16
46	54	81	40	25

3 Teachers

3.1

Number of courses in all programs year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
1348	1348	1291	1108	933

File Description	Document
Institutional data in prescribed format	View Document

3.2

Number of full time teachers year-wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
537	501	474	461	424

File Description	Document
Institutional data in prescribed format	View Document

3.3

Number of sanctioned posts year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
537	501	474	461	424

File Description	Document
Institutional data in prescribed format	View Document

4 Institution

4.1

Number of eligible applications received for admissions to all the programs year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
41584	40918	35133	33527	28063

File Description	Document
Institutional data in prescribed format	View Document

4.2

Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
1434	1465	1179	1135	940

File Description	Document
Institutional data in prescribed format	View Document

4.3

Total number of classrooms and seminar halls

Response: 139

4.4

Total number of computers in the campus for academic purpose

Response: 2630

4.5

Total Expenditure excluding salary year-wise during last five years (INR in Lakhs)

2019-20	2018-19	2017-18	2016-17	2015-16
6928.46	6597.78	3422.95	3470.17	3223.15

NAAC

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.

Response:

Curriculum Development:

A well-structured Curriculum Design and Monitoring Committee (CDMC) is in place at departmental level with the HoD as Chairperson and supported by three other members.

- **Two major revisions were undertaken during last five years, by collecting feedback from different stakeholders.**
- **The curriculum revision is duly approved by BoS, Academic Council and BoM, consisting of senior academicians and renowned experts from industry.**
- **External BoS members of all programs put together is 161 (78 from academia and 83 from industry/research organizations).**
- **PEOs and PSOs are clearly delineated to meet objectives of Outcome Based Education (OBE) during curriculum design.**

Apart from justifying the POs and PSOs of graduates, as guided by Washington Accord, the curriculum is kept relevant to local, national and global needs.

Relevance to National and Global needs:

The institution has revised/added more than 2000 new courses across all the programs of VFSTR in the last five years to keep abreast of emerging trends at national and global levels. Also, the curriculum is enriched with 370 value added courses, most of them taught by industry experts, on topics

relevant to industry. Technical seminars, workshops, and conferences are organized to provide a platform with a view to explore emerging trends and career opportunities at national/global level.

- **Courses in emerging areas like AI, Cyber Security, IoT, Robotics, Machine Learning, and Nanotechnology introduced.**
- **Biomedical Engineering and Bioinformatics programs introduced.**
- **Semester-long industry internship provides experiential learning.**
- **Coding skills for students of all branches, to make them internationally accepted.**
- **Cambridge Certificate courses (PET & BEC) introduced to improve English proficiency and communicative competence of students.**

Relevance to Local and Regional Needs:

- **Food Technology and Agriculture Engineering: Being largely an agrarian area, the region has surplus production of food grains and vegetables. The two programs are aimed at supporting the neighboring farming community, through technology transfer in soil management, food processing and storage etc.**
- **Textile Technology: Cotton being a staple crop of the region, with more than 100 spinning and weaving mills in operation in the vicinity, there is an immense potential for employment.**
- **Petroleum Engineering: Being close to the offshore oil exploratory basin (KG basin) with ample petroleum reserves, students can enjoy good prospects for employment.**

Curriculum aspects to justify POs, PSOs and COs:

- **Curriculum designed to meet objectives of the Graduate Attributes of Washington Accord.**

- **Every program has PSOs and all courses directed towards clear Course Outcomes.**
- **POs like Engineering knowledge, problem analysis, design of solution, modern tool usage, societal problems, life-long learning justified through theory courses, skill based projects, and workshops.**
- **POs like environment consciousness, communication, professional ethics, engineer and society met with special programs in curriculum, English certifications, and extension activities.**
- **PSO attainment made possible through introduction of departmental, open electives**
- **Science and Mathematics courses designed to suit specific applications of the branch.**
- **Credit based courses on Physical fitness, NSS, NCC, Life skills etc., offered for execution of field projects reflecting environment consciousness and societal connect.**

File Description	Document
Upload Additional information	View Document
Link for Additional information	View Document

1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

Response: 100

1.1.2.1 **How many Programmes were revised out of total number of Programmes offered during the last five years**

Response: 44

1.1.2.2 **Number of all Programmes offered by the institution during the last five years.**

Response: 44

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Institutional data in prescribed format	View Document
Details of Programme syllabus revision in last 5 years	View Document
Any additional information	View Document
Link for additional information	View Document

1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

Response: 100

1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
1348	1348	1291	1108	933

File Description	Document
Programme/ Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.2 Academic Flexibility

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.

Response: 77.9

1.2.1.1 **How many new courses were introduced within the last five years.**

Response: 2157

1.2.1.2 **Number of courses offered by the institution across all programmes during the last five years.**

Response: 2769

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).

Response: 100

1.2.2.1 **Number of Programmes in which CBCS / Elective course system implemented.**

Response: 44

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.3 Curriculum Enrichment

1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics ,Gender, Human Values ,Environment and Sustainability into the Curriculum

Response:

The institution explores and integrates through various ways, components related to Professional Ethics, Gender-Sensitivity, Human Values, Environment and Sustainability into the Curriculum. Towards this, courses on Professional Ethics, Constitution of India, Environmental Science etc., are offered as a part of the regular curriculum. A minor specialization on Humanities is offered for engineering students, which is in line with NEP 2020.

Gender sensitivity:

- **Aspects related to “Gender sensitivity” are imparted to inductee students’ right from the Bridge Course, to inculcate mutual respect and understanding.**
- **An entire Unit on Gender Sensitivity is incorporated into the Professional Ethics course.**
- **Seminars and workshops are periodically arranged on the subject.**

Impact:

·Institution is able to attract more girl students (45%) .

·No complaints from students or faculty on gender discrimination since inception of institute.

·Negligible sexual harassment cases in the last five years which have been resolved.

Environment and sustainability:

- **Mandatory Environmental Science course for first year students to train them on conscientious use of natural resources like water and energy.**
- **Course on Environmental Engineering offered for Civil Engineering students on Waste Water Management, Solid Waste Disposal, Sewage Treatment Techniques etc.**
- **A course in R13 on "Renewable Energy Sources" in EEE department.**
- **Two elective courses in R16 on "Renewable Energy Techniques", and "Alternate Energy Sources".**
- **A course in R19 on "Green Energy Technologies" for EEE department.**
- **Three open electives in R16 and R19 for students of all branches on**

"Solar PhotoVoltaic Technologies -I", "Solar PhotoVoltaic Technologies -II", and "Design and Economics of Solar Systems"

Impact:

Students and faculty pick up important aspects of environment conservation and sustainable use of scarce resources; they undertake projects on waste water treatment, solid waste management, sewage treatment etc.

Human Values and Ethics:

- **Importance of human values and ethics are a part of Bridge Course.**
- **A regular course is offered in R16 and R19 on “Professional Ethics and Human Values.”**
- **Professional Ethics is part of the mandatory course on "Research Methodology" for Ph.D scholars.**

The above regular courses are supplemented by the following practical activities:

- **Guest lectures at periodic intervals.**
- **Gandhi Jayanthi is observed as a supplementary course as a week-long celebrations with activities to learn on the practices of Mahatma Gandhi in the areas of Human Values and Ethics (80% of students participate in this course and competitions).**
- **Celebration of cultural festivals such as Sankranthi, Ugadi, Ramadan, Onam, Dussera, Deepavali, Christmas etc. as a practice of cultural values.**
- **Celebration of National festivals like Independence Day, Republic day, Science Day, Women’s day, Engineers Day, Teachers Day etc. to commemorate the sacrifices and contribution of a large number of patriots.**

- **Mandatory plagiarism checks on all articles/theses published by students,research scholars and faculty.**

Impact:

·The institution enjoys healthy interaction among all its stakeholders and is functioning harmoniously without any untoward incidents in the campus.

·Students remain responsive and fully committed and involved during campus events.

·All the students and faculty adhere to ethics while carrying out research resulting in nill issues of plagiarism so far.

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	View Document
Any additional information	View Document

1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years.

Response: 370

1.3.2.1 **How many new value-added courses are added within the last five years.**

Response: 370

File Description	Document
Institutional data in prescribed format	View Document
Brochure or any other document relating to value added courses	View Document
Any additional information	View Document

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

Response: 80.29

1.3.3.1 **Number of students enrolled in value-added courses imparting transferable and life skills offered year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
6211	6196	5053	3460	3561

1.3.4 Percentage of students undertaking field projects / research projects / internships (Data for the latest completed academic year).

Response: 96.12

1.3.4.1 **Number of students undertaking field projects or research projects or internships.**

Response: 6563

File Description	Document
List of Programmes and number of students undertaking field projects research projects/ / internships (Data Template)	View Document
Any additional information	View Document
Link for additional information	View Document

1.4 Feedback System

1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni

Response: A. All 4 of the above

File Description	Document
URL for stakeholder feedback report	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Action taken report of the University on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	View Document

1.4.2 Feedback processes of the institution may be classified as follows:

Response: A. Feedback collected, analysed and action taken and feedback available on website

File Description	Document
URL for feedback report	View Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

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Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Demand Ratio (Average of last five years)

Response: 14.46

2.1.1.1 **Number of seats available year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
2898	2958	2382	2292	1902

File Description	Document
Demand Ratio (Average of Last five years) based on Data Template upload the document	View Document
• Any additional information	View Document

2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per applicable reservation policy during the last five years (Excluding Supernumerary Seats)

Response: 60.02

2.1.2.1 **Number of actual students admitted from the reserved categories year wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
863	857	710	690	568

File Description	Document
Average percentage of seats filled against seats reserved (Data Template)	View Document
Any additional information	View Document

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

Response:

Faculty joining the institution, are trained on diverse teaching methods and ways to assess learning efficacy. The faculty orientation program trains faculty on:

- **Ways of interaction in class rooms**
- **Methods of formative and summative assessments to evaluate learning outcomes through internal assignments, mid exams, mini projects etc.**
- **Continuous Laboratory Assessment (CLA)**
- **Monitoring regularity of students, time spent by them on academics and their performance in team work during campus events, seminars and projects**
- **Student counselling methods**

Special programme for advanced learners:

Advanced learners are motivated to undertake tasks beyond syllabus and provided required orientation and coaching suiting their aspirations, for higher competitive examinations like UPSC, GATE, CAT, GRE, etc. They are provided:

- **Scope for self-learning through online courses/platforms like SWAYAM, NPTEL, Coursera.**
- **Encouragement to opt for Honours degree program.**
- **Opportunities to participate in debates, quiz competitions etc.,**
- **Coaching for UPSC and other public services.**
- **Opportunity of international student exchange program with financial aid. (During last five years, 36 students have completed their internships in prestigious institutions like Nangyang Technological University (Singapore), ECN (France), Soongsil University, and Koreatech University (South Korea.)**

- **Ample avenues for acquiring additional skills through Skill Development Centres.**
- **Opportunities with guidance for pursuing interdisciplinary projects.**
- **Scope for participating in ongoing research projects (both in-house and funded) and gain experiential learning in the department**
- **Financial assistance for executing in-house projects.**
- **Financial support for mentoring slow learners**
- **Facilitation to secure paid internships**
- **Guidance to publish papers in peer reviewed journals.**
- **Financial aid to attend conferences and workshops.**

Special programme for slow learners:

About 15% to 20% of students, who are slow in grasping, are provided additional academic support through special classes and summer semester programmes. Some of the initiatives are:

- **Academic performance reviewed after every mid-examination and students securing below 60% are identified as slow learners.**
- **Remedial and extra classes in identified courses.**
- **Continuous support of faculty counsellors to cope with academic, emotional and psychological issues.**
- **Peer mentoring with support of advanced learners, for helping them to clear academic backlogs**
- **Digital content to aid self-study and easy preparation.**
- **A separate summer semester with supplementary examinations to repeat courses and clear backlogs.**
- **Guidance and professional counselling by campus psychologist to overcome serious behavioral and attitudinal issues.**

Outcome:

- **90% of students complete their courses within the stipulated time**
- **Continuous improvement in student pass percentage observed from 1st to 8th semester.**
- **18% of students completed extra courses like NPTEL, Coursera etc.**
- **More than 600 medals bagged by students in last 5 years.**
- **75-80% students secure jobs while on the campus.**
- **Placed students enjoy fast-track careers once they join the corporate world.**
- **More than 200 students preparing for civil services**

File Description	Document
Upload Any additional information	View Document

2.2.2 Student - Full time teacher ratio (Data for the latest completed academic year)

Response: 13:1

File Description	Document
Any additional information	View Document

2.3 Teaching- Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Response:

A blend of teaching methods catering to the differential learning styles of students are adopted to provide scope for experiential and participative learning besides problem-solving. The following measures are in place:

Experiential learning:

- **Practical sessions for skill development (integrated with majority of theory courses).**
- **Eight Skill Development Labs set up and 5403 students received hands-on training during last three years.**
- **Minor projects made mandatory for majority of courses to promote experiential learning, entrepreneurial skills and student capabilities.**
- **Semester-long internship in final year enables students to work with reputed industries/ research institutes.**
- **Project based learning provides opportunities learning by doing. Around 23 credits allotted for projects in R19 curriculum, which includes –intradepartmental/ interdisciplinary projects, and societal projects**
- **Annual project expo "Srujanankura" organized to showcase students' technical prowess in designing prototypes or live models. 282 student projects demonstrated in 2019 and 395 projects in 2020.**
- **Computer simulations adopted for advanced subjects.**
- **Credits for MOOCs offered via NPTEL to promote self-learning.**
- **Opportunities for technical seminars in course work.**
- **Case study method adopted for management graduates.**
- **Management students spend 2 to 3 weeks as field interns to study marketing practices.**

Participative learning:

Class room participation and collaborative problem solving encouraged through methods such as think-pair-share, connecting the dots, buzz sessions, group discussions, role plays, assignments, and project works.

Blended Teaching Approach

- **Teachers leverage technology and use a mix of traditional methods like chalk and board, ICT and online resources, besides use of multi-media and pre-recorded content with use of smart/light boards.**
- **ICT tools are also used for quick formative assessments and instant feedback on the concepts taught.**

Problem solving methodologies:

Students are given real time problems and asked to apply critical thinking to devise solutions during projects and assignments. Students follow a structured approach for:

- **Identification of technical/ social problem**
- **Brainstorming on probable solutions**
- **Seeking teacher guidance and reviewing of relevant literature**
- **Exploring a feasible solution to develop a prototype.**
- **Special eight hours/week training from II year onwards for coding competitions like Hackathons.**

Outcome:

- **These methods have translated into improved learning outcomes for students in terms of generating active interest towards academics and research particularly among advanced learners.**
- **It has enabled large sections of students to make a transition from memory based learning styles to deeper and active learning, as evidenced in their performance.**
- **This deep learning has enabled students to design prototypes and innovative solutions. Some of the projects carried out by students are:**
    - **Tree Climbing Robot**

- **Fire Fighting Robot**
- **Crop health monitoring using UAV**
- **Polyhouse farming using IoT**
- **Wheelchair with health monitoring system for physically challenged people**
- **Fish waste management**

File Description	Document
Upload any additional information	View Document

2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

Response:

ICT Facilities Available:

Being a technical institution, faculty at VFSTR adopts multimedia teaching aids for the teaching-learning processes. The following facilities are available to develop E-content:

- **Total no of LCD projectors : 141**
- **No of Mi & Smart Boards : 54**
- **No of Light Boards : 08**
- **Editing Software Available : Camtasia.**

- **Faculty members have created digital content for all courses in various programs using these facilities. The quality of the prepared content is verified by external experts.**
- **E-content is uploaded on the institutional LMS-VUMOODLE and Google classrooms, and made accessible to students.**

- **Institute uses technologies such as SMS, e-mail, University Portal for communication with students and parents through smart phones, tablets, and laptops.**
- **Faculty integrate multimedia usage (audio, video, animation software) to enhance their digital presentations and help students to assimilate easily even abstract concepts taught.**
- **Faculty use online digital resources like MOOCs, (Coursera, and NPTEL etc.,) to enable students to gain knowledge in emerging areas.**
- **ICT tools like Google forms, Mentimeter, Slido and Kahoot are used for quick formative assessments and giving instant feedback on the concepts taught.**
- **About 83% of teachers have created content using smart and glass boards and 17% of teachers have used other content development platforms like Camtasia and other softwares.**
- **Weekly assignments and Mid-term examinations are conducted using Google platforms and evaluation is done digitally.**

Special online digital teaching during Covid-19 Lockdown period:

During the covid-19 pandemic period, the institution has effectively deployed ICT facilities and online platforms to continue the teaching learning process and academic sessions. It includes online classes, assignment submissions, laboratory examinations, project evaluations and end-semester examinations. During the period, the institute continuously monitored and supported students on their academic progress and health by providing necessary guidance/ instructions from time to time. From April 2020 to December 2020, the institute organized about 9000 hours of online instruction. 98% of students attended and completed their semester successfully. End semester online examinations of all programs were conducted adopting the online examination platform with video monitoring of all participating students. Currently Blended mode of teaching with simultaneous online and offline classes is on.

This blended teaching learning process has enabled students in learning effectively beyond class hours translating into good academic performance/pass percentage.

Impact:

- **Digital content prepared by faculty is used in consecutive semesters which saves their preparation time for every class.**
- **It gives leverage for faculty to use the saved time for studying advanced topics and update students on emerging trends in the subjects.**
- **These recorded lectures are useful resources for students to revise the content and learn at their own pace.**

Overall use of ICT has greatly improved the teaching learning process, resulting in improved academic engagement of all the students.

File Description	Document
Upload any additional information	View Document
Provide link for webpage describing the " LMS/ Academic management system"	View Document

2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)

Response: 14:1

2.3.3.1 **Number of mentors**

Response: 472

File Description	Document
mentor/mentee ratio	View Document
Circulars pertaining to assigning mentors to mentees	View Document

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

Response: 100

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document

2.4.2 Average percentage of full time teachers with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit. year-wise during the last five years

Response: 31.63

2.4.2.1 **Number of full time teachers with *Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt.* year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
226	189	147	117	93

File Description	Document
List of number of full time teachers with Ph D/D M/M Ch/D N B Superspeciality/DSc/D Lit and number of full time teachers for 5 years	View Document
Any additional information	View Document

2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

Response: 5.31

2.4.3.1 **Total experience of full-time teachers**

Response: 2853

File Description	Document
List of Teachers including their PAN, designation, dept and experience details	View Document
Any additional information	View Document

2.4.4 Average percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government/Govt. recognised bodies during the last five years

Response: 14.81

2.4.4.1 **Number of full time teachers receiving awards from state /national /international level from Government/Govt. recognized bodies year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
22	25	11	10	3

File Description	Document
Institutional data in prescribed format	View Document
e-copies of award letters (scanned or soft copy)	View Document

2.5 Evaluation Process and Reforms

2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Response: 9.3

2.5.1.1 **Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
8.11	8.65	8.51	10.36	10.87

File Description	Document
List of Programmes and date of last semester and date of declaration of results	View Document
Any additional information	View Document

2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 0.87

2.5.2.1 **Number of complaints/grievances about evaluation year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
48	56	84	42	29

File Description	Document
Number of complaints and total number of students appeared year wise	View Document
Any additional information	View Document

2.5.3 IT integration and reforms in the examination procedures and processes (continuous internal assessment and end-semester assessment) have brought in considerable improvement in examination management system of the institution

Response:

The institution considers evaluation system to be the most important quality parameter for checking the efficacy of teaching-learning process, faculty competency and academic engagement of students. The system is well-established and completely automated for administering examinations, announcing results and awarding degrees in a time bound manner.

IT integration and the number of reforms undertaken have enabled to establish a well-defined, transparent and accountable system, which includes maintaining pre-exam confidentiality and post-exam transparency.

IT Integration:

- **All phases of pre-examination like registration, exam fee payment, issuing Hall Tickets, seating arrangement, setting of question papers are completely automated through in-house software.**

- **Allocation of invigilators, personal squads, and posting of attendance is automated.**
- **Examinations are proctored/supervised under CCTV surveillance to identify malpractices.**
- **ICT enabled Post Examination process like scanning answer scripts, encoding, allotment of evaluators, scripts evaluation, decoding, results processing, certification with 8-10 security features, such as water marking, embossing etc., are in place.**
- **Announcement of result and downloading of mark sheets are automated.**
- **Separate portal is available for addressing students' grievances.**

Outcome:

Through these IT enabled services, the institution has been successful in the smooth conduct of end semester online examinations, despite the recent pandemic, for 6000 students in 400 courses, including lab examinations, and declared the results well in advance, (in June and July 2020) compared to rest of the institutes in the region. This has facilitated the final year students to join their jobs in time and the remaining batches to promote to next semester.

Reforms in examination procedures/processes:

- **CGPA limit to award 'first class with distinction' raised from 7.5 to 8.0**
- **All mid examinations considered for assessment.**
- **Periodical auditing of the continuous evaluation process of lab practical's.**
- **CO-PO mapping of all courses carried out and evaluation methods developed to assess PO attainments.**
- **Question paper pattern revised in accordance with the revised Blooms**

taxonomy, and in line with the course and program outcomes.

- **A panel of in-house and industry experts carry out project evaluation.**
- **Audit of laboratories by experts for proper functioning/calibration of equipment**
- **Conduct of examinations with CCTV surveillance.**
- **Evaluation audit by external experts.**
- **End semester examination results declared within 10 days of completion of exams.**
- **Access provided to students for verification of evaluated answer scripts.**
- **Migration from marks / percentage based grading to CGPA system.**

Outcome:

- **Internal assessment schemes have helped to keep students in continuous learning mode, resulting in overall improvement of performance.**
- **Lab exams conducted by involving industry experts.**
- **Time taken for the announcement of results reduced to less than 10 days.**
- **Total number of scripts applied for revaluation is around 0.11% of the total number.**
- **Number of malpractices come down drastically to just 0.04%.**

File Description	Document
Year wise number of applications, students and revaluation cases	View Document
Any additional information	View Document

2.5.4 Status of automation of Examination division along with approved Examination Manual

Response: 100% automation of entire division & implementation of Examination Management System (EMS)

File Description	Document
Current manual of examination automation system and Annual reports of examination including the present status of automation	View Document
Current Manual of examination automation system	View Document
Any additional information	View Document
Annual reports of examination including the present status of automation	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 The institution has stated learning outcomes (generic and programme specific)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents

Response:

The institution has clearly defined COs, PSOs and PEOs consistent with the Mission statement of the institute.

Attainment of these learning outcomes are integrated into continuous assessment and end semester examinations of evaluation process. They are widely publicized and uploaded in to institution's website (https://vignan.ac.in).

An example to illustrate the above process for engineering program is given below:

Defining the Outcomes:

In defining learning outcomes, following aspects are addressed:

- **All course outcomes (COs) are reckonable and stated using action verbs (Bloom's taxonomy).**
- **COs are declarative statements, defining the knowledge, skills and competencies students are to receive on completion of their program.**
- **Additional credit and non-credit based areas covering ethics; environment and society are incorporated into the program through campus activities like Gandhi Jayanthi celebrations, observation of Environment Day etc., to meet the learning outcomes of the courses.**
- **COs are formulated to make students proficient in all areas of learning (cognitive, psychomotor and affective domains). Evaluation on attainment, takes place at program level. CO attainment is based on Continuous Internal Evaluation and end semester examinations.**

Assessment Process:

- **Assessment method/tools are decided, considering the graduate attributes for every program and taking into account different parameters/learning outcomes to be measured.**

Type of Course	Assessment Tool	Graduate Attributes
Theory course	Internal: Weekly Asessment Assignment, Mid Examination • Semester End Examination	• Engineering knowledg • Problem analysis,
Lab course	Internal: Continuous Evaluation Internal Examination- Practical • Semester End Examination -	• Engineering knowledg • Problem analysis, • Design/development o

	Practical	**solutions,** • **Conduct investigation complex problems,** • **Modern tool usage,** • **Ethics** • **Individual and team v**
Mini project/ Project/Internship	**Internal: Internal reviews** **External: Viva-Voce, Demonstration**	• **Problem analysis,** • **Design/development o solutions,** • **Conduct investigation complex problems,** • **Modern tool usage,** • **The engineer and soci** • **Environment and sustainability,** • **Ethics,** • **Individual and team v** • **Communication,** • **Project management a finance**
Seminar course	**Internal: Internal review**	• **Individual and team v** • **Communication,** • **Life-long learning**

Life Skill Activities	**Internal: Internal analysis** **External: External analysis**	• **The engineer and soci** • **Environment and sustainability,** • **Ethics,** • **Individual and team v** • **Communication,** • **Life-long learning**

Dissemination:

- **Before commencement of academic year, decisions are taken in the department faculty meetings on the mode of teaching-learning keeping in perspective the COs, POs and PSOs.**
- **Learning outcomes are publicized through:-**
  - **Publications - Syllabus books, Calendar, Records.**
  - **Display - Class rooms, Laboratories, Corridors, Website.**
  - **Public discourse and explanation - Bridge course for first year students, inaugural sessions for second, third and final year students, workshops, alumni meetings, seminars, conferences and symposia, parent felicitation meetings etc.**

Graduates of different streams are groomed with professional knowledge and ready to take up leadership roles in society for providing technical solutions for societal issues, environment problems etc. They are groomed to be gender sensitive and become resilient in coping with contingencies, by acquiring capabilities for disaster management, while enjoying rights to physical safety and health.

File Description	Document
Upload COs for all courses (exemplars from Glossary)	View Document
Paste link for Additional Information	View Document

2.6.2 Attainment of Programme outcomes, Programme specific outcomes and course outcomes are evaluated by the institution

Response:

A well-defined process for CO and PO attainment has been in practice for the last seven years.

Defining the Learning Outcomes:

- **Curriculum is developed by outlining Course Outcomes and mapping with POs.**
- **Course coordinators map COs with POs and deploy suitable assessment tools with defined rubrics after the approval from departmental committees.**
- **Program Curriculum along with COs & POs is approved in BoS & Academic Council (AC).**

Assessing PO attainments:

- **Gaps identified,during execution addressed through action initiated by the departmental level committees.**
- **The committees set targets for both CO & PO attainments prior to commencement of each semester by considering the attainments of earlier batch and pass percentage of the existing batch.**
- **PO attainment carried out through direct and indirect assessments, with 80%, and 20% weightage respectively.**
- **Direct assessment of POs defined as cumulative assessment of COs.**

- **Computation process followed for assessing CO & PO attainment is given in annexure respectively.**
- **Continuous improvement observed in the attainment of POs/PSOs year on year**

Practices adopted to improve PO and PSO attainment:

Academic practices enforced to improve PO and PSO attainment from 2013 to 2015 Batches:-

- **Introduction of Periodic Assignments / Tests in CIE.**
- **Introduction of Continuous Laboratory Assessment during practical sessions.**
- **Learning resources through ICT**
- **Encouraging and incentivizing, besides motivating self-study like NPTEL, Coursera etc.,**
- **Introduction of some value added courses**

Professional practicesin vogue to improve PO and PSO attainment from 2013 to 2015 Batch:

- **On-line courses offered via NPTEL, EDX, Coursera etc.**
- **Students motivated to participate in Co-curricular & Extra-Curricular activities with OD facility**
- **Student Chapters of Professional bodies like IEEE initiated.**
- **SAC & E-Cell activities conducted round the year**
- **Effective counselling and mentoring in force**

Example:

Improvements of the PO and PSO of last three batchesof B.Tech, ECE

(2013 to 2015):

- **For the 2013 -17 batches the range of attainment is 1.79 to 2.32.**
- **For the 2014 -18 batches the range of attainment is 1.87 to 2.46.**
- **For the 2015 -19 batches the range of attainment is 2.06 to 2.64.**

File Description	Document
Upload any additional information	View Document
Paste link for Additional Information	View Document

2.6.3 Pass Percentage of students(Data for the latest completed academic year)

Response: 92.8

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 1741

2.6.3.2 **Total number of final year students who appeared for the examination conducted by the Institution.**

Response: 1876

File Description	Document
Upload list of Programmes and number of students passed and appeared in the final year examination	View Document
Upload any additional information	View Document
Paste link for the annual report	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response:

File Description	Document
Upload database of all currently enrolled students	View Document

NAAC

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

3.1.1 The institution Research facilities are frequently updated and there is well defined policy for promotion of research which is uploaded on the institutional website and implemented

Response:

Research Policy

VFSTR has a well defined policy for promotion of research with the overall goal of emerging as one of the leading research institutes in the country, and to create new knowledge in the frontier areas. This goal will be pursued through augmentation of research facilities, capacity building in human resources, by strengthening the overall research culture, and increased industry linkages and involvement.

The above policy is frequently updated and well publicized through the institutional website. The policy updated in 2018 is currently posted on the website of VFSTR.

The essential elements of implementation of the research policy are as below:

Human Resources

- **VFSTR has several faculty members with good research credentials and high impact factor.**
- **There has been a good improvement in the number of full time PhD scholars that enhances the quality of research significantly.**

- **Institutional Framework**
  - **Emphasis on research along with teaching.**
  - **Promotion of inter-disciplinary, multi-disciplinary and trans-disciplinary research culture.**
  - **Sabbatical leave for mid-career faculty for pursuing research /post-doc.**

- **About 10% faculty dedicated to research with minimum teaching load.**

- **Infrastructure and Funding**
  - **Centres of Excellence with state-of-the-art facilities and equipment**
  - **Attractive research fellowship provided to full-time scholars.**
  - **Expert guidance during drafting of project proposals for seeking research funding from government/ non-governmnet agencies.**
  - **Seed grants to initiate proof of concept through research articles for securing project grants.**
  - **Performance based research incentives to help promote research culture.**
  - **Grants to attend seminars/workshops/conferences.**
  - **Support for patents with incentives.**
  - **Special incentives for achieving state/national/international awards and research grants.**
  - **Technology Business incubators to promote start-ups.**
- **Industry – Academia Linkages**
  - **Promoting consultancy from industries for developing technologies.**
  - **Collaborative research with industries on frontier areas**
  - **Industry training for faculty to update skills and technical know -how.**
  - **Involving experts from Industry in University Research Board.**
- **Research and Societal Connect**
  - **Sensitizing neighborhood communities on relevant technologies.**

- **Thrust on local and need-based research.**
- **Organizing national/international seminars/workshops/conferences at regular intervals.**

- **Research Ethics**
  - **VFSTR follows research ethics scrupulously and takes stringent action on any instance of plagiarism or alleged misconduct.**

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	View Document
URL of Policy document on promotion of research uploaded on website	View Document

3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Response: 104.24

3.1.2.1 **The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).**

2019-20	2018-19	2017-18	2016-17	2015-16
223.6	216.6	55	16	10

File Description	Document
Minutes of the relevant bodies of the University	View Document
Institutional data in prescribed format	View Document
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View Document

3.1.3 Percentage of teachers receiving national / international fellowship / financial support by various agencies for advanced studies / research during the last five years.

Response: 2

3.1.3.1 **The number of teachers who received national / international fellowship / financial support by various agencies for advanced studies / research year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
10	7	10	10	11

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the award letters of the teachers	View Document

3.1.4 Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during the last five years.

Response: 445

3.1.4.1 **The Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
130	114	108	64	29

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.1.5 Institution has the following facilities to support research

1. **Central Instrumentation Centre**
2. **Animal House/Green House**
3. **Museum**
4. **Media laboratory/Studios**
5. **Business Lab**
6. **Research/Statistical Databases**
7. **Mootcourt**
8. **Theatre**
9. **Art Gallery**

Response: A. 4 or more of the above

File Description	Document
Upload the list of facilities provided by the university and their year of establishment	View Document
Upload any additional information	View Document
Paste link of videos and geotagged photographs	View Document

3.1.6 Percentage of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other recognitions by national and international agencies (Data for the latest completed academic year)

Response: 41.67

3.1.6.1 **The Number of departments with UGC-SAP, CAS, DST-FIST , DBT, ICSSR and other similar recognitions by national and international agencies.**

Response: 5

File Description	Document
Institutional data in prescribed format	View Document
e-version of departmental recognition award letters	View Document

3.2 Resource Mobilization for Research

3.2.1 Extramural funding for Research (Grants sponsored by the non-government sources such as industry, corporate houses, international bodies for research projects) endowments, Chairs in the University during the last five years (INR in Lakhs).

Response: 306.58

3.2.1.1 **Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years (INR in Lakhs).**

2019-20	2018-19	2017-18	2016-17	2015-16
91.02	70.97	53.68	57.31	33.60

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the grant award letters for research projects sponsored by non-government	View Document

3.2.2 Grants for research projects sponsored by the government agencies during the last five years (INR in Lakhs).

Response: 545.47

3.2.2.1 **Total Grants for research projects sponsored by the government agencies year-wise during the last five years (INR in Lakhs).**

2019-20	2018-19	2017-18	2016-17	2015-16
147.54	61.6	80.76	152.25	103.32

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the grant award letters for research projects sponsored by government	View Document

3.2.3 Number of research projects per teacher funded by government and non-government agencies during the last five years

Response: 1.64

3.2.3.1 **Number of research projects funded by government and non-government agencies during the last five years.**

Response: 787

3.2.3.2 **Number of full time teachers worked in the institution year-wise during the last five years..**

Response: 2397

File Description	Document
Supporting document from Funding Agency	View Document
Institutional data in prescribed format	View Document
Paste Link for the funding agency website	View Document

3.3 Innovation Ecosystem

3.3.1 Institution has created an eco system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge.

Response:

The institution has a highly enabling ecosystem for Research, Innovation, Incubation, Entrepreneurship, and Technology transfer. This activity is led by the Directorate of Innovation, Entrepreneurship & Startup activities (IES), Intellectual Property Rights Cell (IPR- Cell), and Vignan Technology Business Incubator.

The details are given below:

Directorate of IES:

The IES is a creative hub that nurtures entrepreneurial endeavors on campus.

- **Assists students at every stage of the enterprise life cycle - initiation, incubation, investment, and institutionalization of innovations.**
- **Earlier named EDC it was established in 2012, and IES Directorate is formed in 2018.**
- **MoU signed with The Indus Entrepreneurs (TiE), Hyderabad to scale up business ideas.**

IPR Cell:

- **The Intellectual Property Rights Cell (IPR- Cell) established in 2018 to create awareness through IPR seminars and facilitate patent filing.**
- **MoU signed with National Research Development Corporation (NRDC), Govt., of India in 2020.**

Vignan’s Technology Business Incubator (VTBI):

The VTBI was established in 2017 with a registration number

CINU73100AP2017NPL105433, encourages entrepreneurship within and outside the University. VTBI partners with VFSTR to build intellectual property from research and commercialize them through licensing and entrepreneurship.

The incubation center is currently located in A-Block with working cubicles for startups. The following support is provided for startup activities by Vignan's Student/ Faculty:

- **Working space and related infrastructure like power, AC without any charges.**
- **Interdisciplinary intellectual support through the faculty and students to solve the technical problems of startups.**
- **Computers, Network, and Reference Library support without any charges for the practical work of the startups.**
- **Financial support as an advance to select startup companies.**
- **Advice on patent filing, and registration of the startup companies.**

E-Cell :

Student entrepreneurship cell (E-Cell) consists of interested and registered students who work on entrepreneurship activity under the guidance of Director IES. Around 40 students work in E-Cell. A Guidance and Monitoring Committee for IES with senior Deans and HoD's as members assists Director, IES in all the activities.

Activities

102 programs organized on entrepreneurship awareness / development / boot camps, ideation programs, and IPR seminars by the students of the E-Cell. A few important activities are:

- **25-day Entrepreneurship Development Program conducted through the DST-NIMAT project, 09th Dec 2019 to 03rd Jan2020.**
- **Entrepreneurship Boot Camp and Idea workshop in Association with**

TiE GRAD, Hyderabad on 13th Dec 2019.

- **A seminar on Intellectual property rights by Dr. B.K. Sahoo, Regional Manager, NRDC, Govt. of India organized in VFSTR on 03rd Jan 2020.**

Achievements/Impacts

- **One former faculty and two former students of VFSTR started a startup company in 2019,named 30M Genomics Private Limited. Its proposal with a code of BIRAC/IKP01210/BIG-16/20 is one of the 60 proposals selected by BIRAC out of 7000 proposals for funding up to Rs 40 Lakhs for their product/process.**
- **VFSTR and 30M Genomics signed an MoU for a start-up to be incubated in the institute for DNA based medical diagnostic product.**
- **32 patents were filed and published in different areas and 4 patents are granted (including two US Patents).**
- **Number of startups-10 and students involved in the startups-10.**

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development during the last five years.

Response: 102

3.3.2.1 **Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
37	19	22	12	12

File Description	Document
Report of the event	View Document
Institutional data in prescribed format	View Document

3.3.3 Number of awards / recognitions received for research/innovations by the institution / teachers / research scholars / students during the last five years.

Response: 296

3.3.3.1 **Total number of awards / recognitions received for *research* / innovations won by institution / teachers / research scholars / students year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
106	88	59	33	10

File Description	Document
Institutional data in prescribed format	View Document
e- copies of award letters	View Document

3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee

Response: A. All of the above

File Description	Document
Code of ethics for Research document, Research Advisory committee and ethics committee constitution and list of members on these committees, software used for Plagiarism check, link to Website	View Document

3.4.2 The institution provides incentives to teachers who receive state, national and international recognitions/awards 1.Commendation and monetary incentive at a University function 2.Commendation and medal at a University function 3. Certificate of honor 4.Announcement in the Newsletter / website

Response: A.. All of the above

File Description	Document
Institutional data in prescribed format	View Document
e- copies of the letters of awards	View Document

3.4.3 Number of Patents published / awarded during the last five years.

Response: 32

3.4.3.1 **Total number of Patents published / awarded year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
17	8	2	0	5

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.4.4 Number of Ph.D's awarded per teacher during the last five years.

Response: 0.64

3.4.4.1 **How many Ph.D's are awarded within last five years.**

Response: 68

3.4.4.2 **Number of teachers recognized as guides during the last five years**

Response: 107

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
URL to the research page on HEI web site	View Document

3.4.5 Number of research papers per teachers in the Journals notified on UGC website during the last five years

Response: 4.28

3.4.5.1 **Number of research papers in the Journals notified on UGC website during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
771	481	389	233	180

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.4.6 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years

Response: 2.45

3.4.6.1 **Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
338	267	234	240	94

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.4.7 E-content is developed by teachers :

1. **For e-PG-Pathshala**
2. **For CEC (Under Graduate)**
3. **For SWAYAM**
4. **For other MOOCs platform**
5. **For NPTEL/NMEICT/any other Government Initiatives**
6. **For Institutional LMS**

Response: D. Any 2 of the above

File Description	Document
Institutional data in prescribed format	View Document
Give links or upload document of e-content developed	View Document

3.4.8 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed

Response:

File Description	Document
Bibliometrics of the publications during the last five years	View Document
Any additional information	View Document

3.4.9 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution

Response:

File Description	Document
Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View Document
Any additional information	View Document

3.5 Consultancy

3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual and encourages its faculty to undertake consultancy.

Response:

VFSTR has a well-defined policy on consultancy with industry and potential clients in mutually beneficial manner to :-

- **Provide technical solutions to problems**
- **Improve efficiency of operations, and to provide specialised trainings.**
- **Upgrade the processes and systems**

- **Provide specialised equipment and testing facilities available with the institute**
- **Provide research expertise and optimise programming solutions to the App based consultancy works.**

VFSTR accepts the proposals on the above consultancy services and provides intellectual and laboratory resources on charge basis.

VFSTR encourages its faculty for a good public outreach to study and identify the technical problem which can be taken up as consultancy services.Similarly the institute provides wide publicity about its specialised laboratories and state-of-the-art equipment to the potential clients.The institute is flexible with respect to the charges to be levied, the objective being bringing in scientifc and cost-effective technical solutions to the industry and the society at large.

The details of consultancy services are as below:

*** Dean R&D, or concerned Heads of Departments are focal points for interactions and negotiations with the customers.**

*** The charges on each consultancy service is decided on a case by case basis by the Dean R&D.**

***The net revenue from the consultancy services will be shared between employee(s) and the Institute in the ratio of 70:30.**

***Any intellectual property arising out of the consultancy works will be jointly patented by VFSTR and the customer.**

***Licensing for commercial use of IPs resulting from consultancy works will be jointly decided .**

Implementation:

Currently, a few departments are active in various consultancy works. VFSTR successfully completed 341 projects worth Rs.445.36 Lakhs in the last five years i.e. 2015-2020. Some of the contributing

departments for consultancy works are Civil Engineering, EEE, ECE, Chemical Engineering, Sciences & Humanities departments. A few important works carried out are as below:

- **The department of Civil Engineering executed consultancy for the client "Sarva Shiskha Abhiyan, Government of Andhra Pradesh", titled "Design of a concrete mix for M 20 grade concrete using 20 mm and 10 mm coarse aggregates.**
- **Textile Engineering faculty trained fifty technicians of a company "Teejay India Pvt. Ltd" located in Brandix India Apparel city in Visakhapatnam, under an MoU on charge basis.**
- **Cambridge English Certification programme (training+asessment) was extended to six schools and three colleges in the neighborhood.**

The revenue sharing with the concerned executives is a continuing process based on completion of works, realisation of amounts etc.

File Description	Document
Upload soft copy of the Consultancy Policy	View Document
Upload minutes of the Governing Council/ Syndicate/Board of Management related to consultancy policy	View Document
Upload any additional information	View Document
Paste URL of the consultancy policy document	View Document

3.5.2 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

Response: 445.36

3.5.2.1 **Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).**

2019-20	2018-19	2017-18	2016-17	2015-16
130.655	116.43	106.76	65.87	25.64

File Description	Document
Institutional data in prescribed format	View Document
Audited statements of accounts indicating the revenue generated through consultancy	View Document

3.6 Extension Activities

3.6.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years.

Response:

Towards realising the institutional Vision of transforming students into socially responsible citizens, VFSTR plans and executes a wide gamut of activities on socially relevant aspects.

A well-thought out mechanism is in place to sensitise the students and involve them in societal centric services.

- **The newly admitted students are enrolled as volunteers into NSS/NCC/ Vignan Village Programs in the first month of their course.**
- **Students participate for the next four years in these programmes and conduct a host of events related to the local community to extend knowledge/ technology through skill development programs, awareness on renewable energy, programs for women on nutrition/health hygiene, etc.**

Outreach programs conducted:

Extending support to rural students

- **Minimized student dropout in six government schools, through continuous monitoring and counseling over 4 years; the dropout rate**

decreased to 5%, and the pass percentage improved to 90%.

Enhancing Rural Employability

- **Three batches of unemployed rural graduates trained on the use of ICT, pedagogical and interview skills with 100% placements.**

Special training to Rural Women

- **120 women made self-sustainable on manufacturing low-cost hygienic sanitary napkins with 700 unit/day output.**

Computer Literacy for Rural students

- **Rural students of the adopted villages are trained on computer education by 72 students and 12 faculty of the Institute.**

Value-added (Bio-fortified) Tomatoes with iron.

- **A DST project helped uneducated women to grow iron-rich tomatoes to overcome anemia.**

Low-Cost Pneumatic Pigeon Pea planter for pulse crop

- **Identified a problem on existing pneumatic planter currently available for Rs. 5 lakhs and reduced cost of machinery to Rs. 25,000 by evolving a lighter, user-friendly version adaptable to Indian conditions with local materials.**

Coconut Climbing Mechanism

- **Funded by VSFTR, a multidisciplinary team of ECE, Mechanical, EEE and CSE students designed the coconut tree climbing robot.**

Community-based APSDC skill development programs for 800 unemployed youth on:

- **Home Electrical training**
- **Computer numerical control (CMC) to design on Lathe.**
- **Computer-Based Tutorials (CBT) for videos and animations.**
- **Training on gas and arc welding**
- **Training on Home and Office Electronics**
- **Training on Refrigeration and Air Condition (R&A/C)**

Community service activities by UEAC:

- **Conducted Water Quality Index and donated RO water plant in the adopted village.**
- **Donated Rs. 11.43 Lakhs and participated in the 2018 Kerala Flood Rehabilitation works.**
- **Awareness programs for local student communities on sanitation, health, seasonal diseases, higher education.**
- **Medical camps (Oncology, breast, cervical tests for women) conducted in the villages.**
- **Rally for waters and Pinkathon observed in Guntur and Vijayawada with 4000 participants.**
- **More than 3000 units of blood donated to government and private blood banks.**
- **Conducted awareness programs on organ donation.**
- **Observing Swatchh Bharat, Unnat Bhart Abhiyan, Swachhata hi Seva**

VFSTR won several accolades and awards for its extension activities like:

- **“A Silver Medal” in 2016 by Honourable Governor of AP.**
- **“Green Campus award” by CM of AP State Government in 2017.**
- **Three interns won Rs.60000 cash reward by MHRD in 2018 for Swachh Bharath Internship.**
- **“Seva Bharathi Award” from NGO in 2018.**
- **“Chatrapathi award” by Shivaji Foundation in 2019.**
- **NGO award continuously from 2016 to 2020.**

File Description	Document
Paste link for additional information	View Document

3.6.2 Number of awards received by the Institution, its teachers and students from Government /Government recognised bodies in recognition of the extension activities carried out during the last five years

Response: 56

3.6.2.1 **Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
16	14	10	9	7

File Description	Document
Institutional data in prescribed format	View Document
e-copy of the award letters	View Document

3.6.3 Number of extension and outreach programs conducted by the institution including those through NSS/NCC/Red cross/YRC during the last five years (including Government initiated programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community and NGOs).

Response: 254

3.6.3.1 **Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc. (including Government initiated programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community and NGOs) year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
64	52	48	48	42

File Description	Document
Reports of the event organized	View Document
Institutional data in prescribed format	View Document

3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

Response: 91.1

3.6.4.1 **Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
6381	5843	5725	5125	4296

File Description	Document
Report of the event	View Document
Institutional data in prescribed format	View Document

3.7 Collaboration

3.7.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year

Response: 303.4

3.7.1.1 **Total number of Collaborative activities with other institutions / research establishment / industry for research and academic development of faculty and students year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
521	382	247	210	157

File Description	Document
Institutional data in prescribed format	View Document
Copies of collaboration	View Document

3.7.2 Number of functional MoUs with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.

Response: 125

3.7.2.1 **Number of functional MoUs with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
39	30	25	17	14

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the MoUs with institution/ industry	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc.

Response:

- **VFSTR has a lush green campus spread over 42.86 acres, for stimulating a wide spectrum of activities mainly teaching - learning,research, Co & Extra-curricular activities.**
- **1,32,739 Sq.m built up area (88,752 Sq.m for Classrooms, Labs. & Library, 43,987 Sq. m for hostels, guest house & health center), and a new academic block of 47,649 Sq.m in final phase of completion.**
- **Average area per student 12.5 Sq.m against AICTE recommendation of 9 Sq.m.**

Facilities for Teaching-Learning:

- **127 well ventilated, spacious classrooms with 60-65 seating and 36 tutorial rooms.**
- **40% classrooms air-conditioned with smart/ glass/ MI boards; rest 60% ICT enabled.**
- **Average classroom area is 89.53 Sq.m against AICTE norms of 66 Sq.m.**
- **Classrooms optimally used for value added courses and optional club activities**

Laboratories:

- **114 state of art laboratories with equipment worth Rs. 2016 Lakhs (Rs.1556 lakhs invested last five years).**
- **Laboratories equipped with functional workspaces and amenities like**

Wi-Fi, electricity and gas.

Centres of Excellence and Research Centres:

Four Centres of Excellence and 15 Research Centres for multidisciplinary research.

Objectives:

- **To create state of art facilities for interdisciplinary and collaborative research to attract industry sponsored projects.**
- **To offer consultancy services to government and non-government agencies**
- **To establish MoUs with industry and research organizations, at national and international level.**

Research Centres:

Thrust areas :

- **Software Defined Radios,**
- **Robotics,**
- **Drones,**
- **Composite materials,**
- **Agriculture Engineering,**
- **Bio-medical Signal processing,**
- **Low power VLSI design,**
- **Bio-Diesel Synthesis,**
- **Hybrid Vehicles,**
- **Automotive Engineering,**

- **Data Analytics,**
- **Big Data,**
- **Cloud Computing,**
- **Machine Vision,**
- **AI tools,**
- **Machine Learning,**
- **Deep Learning,**
- **Internet of Things (IoT).**

Centres of Excellence (CoEx):

Four CoEs worth Rs.14.88 Crores for advanced research like 5G communications, Smart Antenna design, Composite materials, Advanced Manufacturing, Immunology, Advanced Bio Processing.

- **Advanced RF Microwave and wireless communications established in collaboration with M/s Key Sight Technologies, worth Rs.1104.70 Lakhs**
- **Bioresource Management, a joint venture with DST-FIST worth Rs.49.76 Lakhs.**
- **CoEx - Composite Materials funded by VFSTR, worth Rs.48.05 Lakhs.**
- **Advanced Materials Manufacturing, Processing, and Characterization worth Rs.285.7 Lakhs funded by VFSTR.**

Outcomes:

- **Published 2054 research articles.**

Skill Development Labs:

- **Eight Skill Development Labs worth Rs.6.91 Crores established in 2016 in association with AP State Skill Development Corporation and collaboration by M/S Siemens Corporation.**

Outcomes:

- **5403 VFSTR students and 1947 external students trained**
- **Hands-on training provided to rural youth leading to employability**

Computing Equipment:

- **Rupees Six Crores expended between 2015-20 for upgrading IT infrastructure.**
- **Centralised computing facility in 1250 Sq.m**
- **2630 systems with 2.6:1student-computer ratio**
- **5000 Wi-Fi and LAN networked connections and 250 access points.**
- **Department computer facilities with 60-120 systems each.**
- **1 GBPS Internet with 60 MBPS backup, Firewall, Proxy, DHCP, application servers**
- **Exclusive University computer research center with High-end server (Specifications: HP blade servers, Intel Xeon –Platinum processer 56 cores(2 x 28 cores), 1.5 TB RAM, 12TB Harddisk,2 x NVIDIA Tesla V100 32 GBGPU)**

Utilisation:

- **13– 14 hours/day computer utility for online courses, projects, programming skill practice through HACKATHONS.**

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.1.2 The institution has adequate facilities for cultural activities, yoga, games (indoor, outdoor) and sports. (gymnasium, yoga centre, auditorium, etc.)

Response:

The institution endeavours to contribute skilled, knowledgeable and dynamic professionals who are well-balanced, capable of leading organizations and serve the society. Adequate care is taken to develop students in all dimensions, *viz*. intellectual, physical, social and psychological.

The all-round development of students is made possible through the following cultural activities for which the institution is spending Rs.90 Lakhs per year.

Students earn credits through optional club activities with support of trainers.

Utility rate

S.No	Name of Club	Area Sq.m	Year of Establishment	Users/Week
1	Dance	200	2010	415
2	Music	96	2010	219
3	Theatre Arts	106	2018	184
4	Literary	110	2010	91
5	Fine Arts	103	2010	46
6	Photography& Film	106	2017	114
7	Heritage&Environmental	112	2016	137
8	Travel	109	2017	89
9	Innovators	115	2017	180

10	GK	103	2017	73
	Total - 1548			

Provision for art clubs:

Annual budget of Rs.25 Lakhs allocated for purchase/ hiring material like PA System, Musical Instruments, Costumes for club activities.

Instruments available with Music and dance Club are Drum Kit, Acoustic Guitar, Electric guitar, Base guitar, Keyboard, Mikes and Processor, Sound system for dance club, Audio Jacks, Drum Sticks etc.

Auditoriums and Facilities for Cultural Clubs:

S.No	Facility	Quantity	Seating Capacity
1	Seminar halls	12	2500
2	OAT (H block)	1	1500
3	OAT (U block)	1	2000
4	OAT (A block)	1	1500
5	Multipurpose Auditorium	1	3000

Yoga and Gymnasium facilities

- **Yoga centre provides specialized training to student and staff**
- **Two well-furnished Gyms in boys hostel and girls hostel with modern equipment like Tread Mill, Bicycle, Squat rack, Barbell, Pulley, Dumbbell, Pull-up, Leg- Extension, Leg Curl, Hammer etc.**
- **An open air gymnasium with lot of interesting equipment is constructed in 2019 at a cost of Rs. 8 Lakhs, and is being used by students in the off-class hours.**

Utility Rate: Every day,the Gymnasium and Yoga facilities are utilised by 600 students.

Sports and Games facilities:

- **Sports facilities spread over an approximately 43,580 Sq.m. area providing facilities for cricket, foot-ball, volley ball, kabaddi, tennis, basket Ball,badminton,tennicoit and Indoor games.**
- **Physical Education Cell supported with 3 Physical Directors and 6 Coaches.**
- **Recurring expenditure on the sports facilities per year is approximately Rs.30-50 Lakhs.**

A Special Weightage for Physical Fitness:

An initiative, unique to VFSTR is the introduction of a 3-Credit compulsory Sports and Fitness course in R-19 Curriculum, which is in line with National Mission of a "Fit India".

Utility:

Sports arena can engage 1000 students at a time and it is optimally utilized after classes.

Outcomes:

Through conscious and continuous efforts, students are groomed into:

- **Physically robust and health conscious individuals, through campus sports**
- **Dynamic and psychologically resilient professionals**
- **Professionals who are appreciative of their rich and diverse culture and can work together with cooperation and team spirit.**
- **Confident and competitive professionals - VFSTR bagged more than 600 prizes in various competitions**
- **Self-disciplined and socially responsible individuals - No untoward incidents of student unrest in the campus.**

File Description	Document
Upload any additional information	View Document
Geotagged pictures	View Document
Paste link for additional information	View Document

4.1.3 Availability of general campus facilities and overall ambience

Response:

A serene ambience backed up by excellent infrastructure with all facilities such as library,Wi-Fi, remote access to e-resources, sports and games, medical and banking facilities,canteen, hostels, gymnasium, transport, etc., to meet all the needs of various stakeholders.

1. **Excellent Green Campus:**
    - **50% of campus under green cover, including a herbal garden and medicinal plants, a lotus pond, greenhouse and hydroponics, making VFSTR an eco-friendly campus.**
    - **Institution undertakes green audits and received "Green Institution Award- 2018" from A.P Government.**
2. **Administrative Block: Administrative block of area, 3257 Sq.m, houses Vice Chancellor Office, Examination Cell, Registrar Office, T&P Cell, Deans offices, Finance Section, IQAC Office and some classrooms and laboratories etc.**
3. **Hostel Facility: Availed by 35% students, five hostel blocks with a built-up area of 35,150 Sq.m provide resident facilities for more than 2000 students.**
4. **Rain water and waste management:**

- **A two-acre water recharging facility available to maintain stable water index.**

- **A biogas plant worth Rs.48 Lakhs processes 1000 Kg food waste, generating 70 Kg LPG equivalent Biogas/ day for hostel-kitchen use.**
- **Slurry from Biogas Plant planned to be used as manure for gardening.**

5. Canteen and Shopping facility:

- **Built with a cost of Rs 1.5 Crore, cafeteria has 400 seating capacity and offers multi-cuisine menu at affordable prices.**
- **Ten food courts/kiosks available spread over all the buildings with quick access to students.**

6. Medical Facility

- **A Primary health centre with two resident doctors and paramedical staff provides medical support for all members of the university.Emergency cases and cases requiring specialised medical attention are referred to the hospital located just across the university. 24X7 ambulance facility is available.**
- **Guest House:**
- **Guest House with 40 A/C executive rooms, 2 dining halls, reception hall, with television, Wi-Fi etc., for visitors .**

8. Banking Facility:

- **Campus branch of UCO Bank provides all facilities.**
- **On campus, ATMs (UCO and PNB) available.**
- **SBI offers Educational loans to students.**
- **Staff avail housing loans, personal loans etc.**

9. 24X7 Water and Power facility

- **R.O Water plants available in every block for use by faculty and 7000 students.**

- **3DG sets with total capacity of 950KVA.**
- **102 UPS systems for important computer systems and laboratories**

10.Network facility:

- **IT Infrastructure with 5000 networked systems and Wi-Fi.**
- **2630 computer systems with 1 GBPS internet and 60 MBPS backup.**
- **Central computer facility for all Curricular and Placement activities.**

11. Safety & Security:

- **All buildings designed to withstand wind speeds of 250 Km/hr**
- **Round the clock security system with 73 security personnel.**
- **Block-wise fire alarm systems with extinguishers and first-aid kits.**
- **Training on safety and first-aid conducted periodically for security, sports personnel and faculty members.**
- **CCTV cameras installed everywhere to ensure ragging free environment.**

12. Parking facility:

- **40,000 Sq.m parking area, with parking regulations in place.**

13. Transport facility:

- **A fleet of 60 buses plying within 50 Kms radius caters to 3215 users.**
- **Staff avail 50% subsidy on transport fee.**

Conclusion:

The spacious campus with rich oxygen levels and minimum particle levels contribute to sound health of its members and all facilities are optimally utilized by both faculty and students.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during the last five years (INR in Lakhs)

Response: 37.55

4.1.4.1 **Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)**

2019-20	2018-19	2017-18	2016-17	2015-16
2759.04	2510.73	1092.46	1293.35	1311.59

File Description	Document
Upload audited utilization statements	View Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS) and has digitisation facility

Response:

Library Advisory Committee (LAC) :

LAC constituted by Vice-Chancellor, reviews the functioning of library and

renders advice for its overall development. An annual budget of Rs. 100 Lakhs is spent on purchase of books and journals (e-journals and print journals).

Library Infrastructure:

- **The institution has an artistically well designed, octagonal structured knowledge resource centre called NTR-Vignan Central Library of area 5902 Sq.m.**
- **The facility has three conference halls including a video conference hall, separate digital section with 60 systems and separate research carrels for Ph.D. scholars.**
- **Total investment is Rs. Seven Crores in the last five years of which Rs.Five crores for purchase of books, journals, digital resources, and Rs.Two crores for augmentation of infrastructure.**
- **Total number of titles 29658, volumes 101651.**

Automation of Library:

- **NTR-Vignan Central Library, is managed with fully-automated, multi-user, integrated Library Management Software, called EZlib, developed in-house by students under faculty guidance.**
- **The facility is open for 15 hours per day on all working days and students can enjoy remote access to all library resources, can download digital content to prepare not only for academic and project works but also avail resources for preparation for competitive exams like UPSC, GATE,GRE,TOEFL etc. are available for any of the students pursuing competitive exams.**
- **Average number of students who use library is 1600 per day, during the last five years.**

Digitization facility:

- **Library has subscribed for 7000 e-journals at an annual cost of Rs.64 Lakhs**
- **2762 e-books available for download and use.**
- **Computers installed in the research carrels so that research scholars can independently operate and search for required materials.**
- **A number of CDs (6000) are available with content on different subjects.**

Utility of ILMS and digital resources by Faculty and Research Scholars:

- **Faculty can access 7000 e-journals from IEEE/IET Electronic Library (IEL), Springer-Link, ASME and ASCE online journals, EBSCO, JSTOR, DOAJ, Cambridge University Press etc.**
- **Research scholars can review latest development in thrust areas of research through online resources**
- **Nearly Rs. 13 lakhs worth e-books can be accessed through McGraw-Hill, Pearson, World e-Book Library (WeL), SouthAsia Archives, DELNET, E-Shodhsindu (via INFLIBNET) and National Digital Library (NDL) etc.**

Special initiatives of Library:

- **Every day library is moving to classes to facilitate students and faculty on**
  - **Articles by experts in news papers**
  - **Placements information**
  - **Different companies achievements**
  - **Thrust areas of Research**
- **Inclusion of library hours in students' time-table to motivate self-learning**

- **Ramp access to the library building for differently abled students**
- **Periodic exhibition of new journals/books inside the library**
- **Mobile library within the campus**
- **Suggestions invited from various stake-holders to further improve services**

Impact:

Library Services automation has increased efficiency of content search, and location functions.

- **Improved efficiency of library staff to provide more time and attention for student services.**
- **Campus-wide availability of e-resources through Wi-Fi enables unlimited content for academic and research purpose**
- **Automated and digitized library services promoting self-study in students.**

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.2.2 Institution has access to the following: 1. e-journals 2. e-ShodhSindhu 3. Shodhganga Membership 4. e-books 5. Databases 6. Remote access to e-resources

Response: A. Any 4 or more of the above

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-

journals during the last five years (INR in Lakhs)

Response: 100.74

4.2.3.1 Annual expenditure for the purchase of books and journals including e-journals year-wise during last five years (INR in Lakhs)

2019-20	2018-19	2017-18	2016-17	2015-16
129.48	108.27	98.05	83.43	84.45

File Description	Document
Institutional data in prescribed format	View Document
Audited statements of accounts	View Document
Any additional information	View Document

4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the last completed academic year

Response: 25.88

4.2.4.1 **Number of teachers and students using library per day over last one year**

Response: 1906

File Description	Document
Details of library usage by teachers and students (Library accession register, online accession details to be provided as supporting documents)	View Document
Any additional information	View Document

4.3 IT Infrastructure

4.3.1 Percentage of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart board, Wi-Fi/LAN, audio video recording facilities. (Data for the latest completed academic year)

Response: 100

4.3.1.1 **Number of classrooms and seminar halls with ICT facilities**

Response: 139

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document
Paste link for additional information	View Document

4.3.2 Institution has an IT policy, makes appropriate budgetary provision and updates its IT facilities including Wi-Fi facility

Response:

- **An IT policy is in place to maintain a secure, legal and appropriate use of IT infrastructure for free flow of information and maintenance of confidentiality and integrity. Access to information assets are created, managed, and regulated with the help of IT infrastructure.**
- **A skilled IT team comprising of six technical personnel supported by three software developers and headed by Dean IT Services works to plan, develop, upgrade, and maintain IT infrastructure and related services.**

Salient features of IT policy :

- **Institution makes available required IT infrastructure and services to all students, faculty, and staff on 24x7 basis.**
- **Regular Maintenance and upgradation of IT systems in-line with their useful shelf-life and their obsolescence.**
- **Sufficient budget allocation to meet the current as well as future needs of ever growing digital systems and services.(99% of the budget allocated is used every year).**
- **Maintaining a healthy computer-student ratio of 1:2 and reach 1:1 by end 2025.**
- **Efforts to be made to digitalize the curriculum and provide access to learning resources (atleast 80%) through internet by end 2021.**

- **Disposal of e-waste through buy-back options.**

IT Policy Implementation

- **5000 network connections through LAN and Wi-Fi access are available currently in the campus as per policy.**
- **A total of 2630 computer systems in Laboratories, Research Centers, and Classrooms.**
- **Internet facility available with 1 GBPS bandwidth along with adequate back up facility.**
- **A powerful firewall installed to avoid misuse of internet facility and access to undesirable websites.**
- **All data related to examination system is on a separate LAN within the institute which can be accessed only by the employees of exam cell.**
- **Institute is a member of National Academic Depository (NAD) instituted by MHRD.**
- **Sophos firewall to protect from external threats, and Kaspersky to protect from internal threats are installed in front end office systems.**

Budgetary provisions and utilization:

- **On an average, an annual budget of Rs.100 Lakhs were spent over last five years in development and up-gradation of IT Infrastructure.**
- **University research computer facility created with large memory and fast processing computers to cater to research requirements of various departments.**
- **Each department has a research node connected to the university research computer center. The computers in the center also host research data bases.**
- **The university research computer facility is established at a cost of Rs.**

63 Lakhs.

- **Network monitoring carried out on real time basis for whole university from the university computer center.**
- **NKN of 1 GBPS is hired for the university at cost of Rs. 50 lakhs for 10 years in 2010.**
- **Additional network of 60 MBPS hired from Reliance Communications as a standby at a cost of Rs.5 Lakhs**

Expansion Plans (in the next five years) :

- **Augmenting the Learning Management System to enable distance learning.**
- **Special repository to accommodate Online and Open Distance Learning (ODL) inline with the spirit of NEP2020,**
- **Digital content management – expansion of internal and cloud storage.**

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.3.3 Student - Computer ratio (Data for the latest completed academic year)

Response: 3:1

File Description	Document
Upload any additional information	View Document
Student – computer ratio	View Document

4.3.4 Available bandwidth of internet connection in the Institution (Leased line)

Response: A. ?1 GBPS

File Description	Document
Upload any additional information	View Document
Details of available bandwidth of internet connection in the Institution	View Document

4.3.5 Institution has the following Facilities for e-content development

1. **Media centre**
2. **Audio visual centre**
3. **Lecture Capturing System(LCS)**
4. **Mixing equipments and softwares for editing**

Response: A. All of the above

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document
Links of photographs	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years

Response: 11.11

4.4.1.1 **Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year-wise during the last five years (INR in lakhs)**

2019-20	2018-19	2017-18	2016-17	2015-16
672.10	583.52	455.02	395.46	397.02

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document
Audited statements of accounts	View Document

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Response:

For maintenance of the sprawling and beautifully landscaped campus and its physical infrastructure, there is a team of Administrative staff and appropriate systems in place to support all academic, research and extension activities of the institution .

The maintenance policy of VFSTR is:

- **Physical infrastructure of classrooms and other facilities to be maintained in a clean and hygienic way.**
- **All laboratory equipment to be kept functional at all times.**
- **Power to be available 24x7 with required backup**
- **Preventive maintenance should be adopted maximally.**
- **Regular updating of stock registers and utilization registers.**
- **Consumables to be procured at least one week in advance.**

Well defined systems and streamlined procedures are available for maintaining all existing facilities as per the above policy, through demarcated sections, which are supported by a dedicated team of more than 100 members. The institution allocates 10-15% of its budget towards maintenance works.

Procedures of maintenance and utilization:

Identifying problems:

- **Concerned maintenance team conducts periodical checks of buildings to verify power supply, water, any deviations in structures like cracks, Spalling at edges, Swelling of concrete, Internal cracking etc., and refers to the concerned section.**

- **A continuous practice followed to check classrooms, notes status of furniture, fans, power, blackboards, projectors and CC cameras.**
- **A procedure in place to receive complaints through online portal from staff and students**
- **All fire safety equipment checked once a month.**
- **The team oversees general maintenance of paint, power switches and general cleanliness.**

Preventive Maintenance:

- **Periodic maintenance of facilities/equipment as per schedule is scrupulously executed by persons responsible.**
- **Items whose usage has exceeded the prescribed time are replaced time to time.**
- **Regular maintenance of water tanks, rusting of iron in slabs etc.**

Breakdown maintenance:

- **Breakdown maintenance of any asset, facility and equipment, -whether or not under AMC or under preventive maintenance - is attended in mission-mode.**
- **Maintenance of facilities such as water system, IT facilities, hostel facilities, motor vehicles etc. on breakdown are attended immediately.**

Electrical maintenance:

A team of 8 to 10 electricians supervised by one electrical engineer (as in-charge) maintains 24x7 functionality, to take care of all issues related to transformer guard, electrical panels, DG sets, UP Systems, Air Conditioning systems, solar power plant, and general power facilities like fans, switches etc.

IT infrastructure maintenance:

A group of dedicated hardware and network personnel headed by Dean IT services are on roll to resolve maintenance issues related to computers, peripherals, LCD projectors, LAN, Wi-Fi connections, telephones etc.

- **Dean IT services ensures proper maintenance of all types of computing devices under his purview and caters to growing user needs by procuring required resources from duly approved vendors based on the requirement.**
- **A schedule of health monitoring and preventive maintenance is carried out for which all the spares, tools, and equipment are available.**
- **IT team maintains Logbooks for IT and Telecom facilities, which are also accessible online.**

Classrooms and Lab Maintenance:

Deputy HoDs, infrastructure coordinators and lab in-charges of each department are responsible for maintenance of all equipment/facilities in classrooms and Labs of their departments.

- **Periodic inspection of classroom facilities is carried out by HoD and infrastructure coordinator**
- **Lab Technicians well trained for maintaining the Lab equipment.**
- **Beginning every semester, class in-charges and lab technicians guided by the deputy HoDs audit the functioning of computers, LCD projectors and audio-visual systems.**
- **Minor issues identified are registered on the complaint portal, and resolved.**
- **Major repairs are referred to the suppliers of the instrument.**
- **Beginning every semester, Lab in-charge and lab technicians guided by the deputy HoDs audit the functioning of lab equipment and get**

resolved all minor issues identified; major repairs are referred to suppliers of the instrument.

- **Purchase of equipment done through Central Purchase Committee, who insists the supplier to provide AMC for at least 2 years and also train concerned lab technicians.**

Library Maintenance: -

Library staff comprises of a Librarian and 8 library staff. They take care of :

- **shelving and re-shelving;**
- **keeping books and materials with cleanliness in shelves and stack rooms**
- **supervising the collection**
- **conservation and preservation of materials including repairs and binding**
- **stocktaking and weeding;**
- **security of library material**
- **Periodic cleaning and pest control as per schedule.**

Furniture Maintenance:

- **A dedicated team of 10 skilled personnel are part of the in-house Workshop who cater to the manufacture of furniture of the university and look after the overall and timely maintenance of all furniture in use in offices, classrooms, laboratories, guest house, hostels, and library, along with maintenance of doors and windows of all buildings**

Sports Maintenance:

The senior Physical Director assisted by two Physical Directors acts as a nodal authority for the maintenance of the sports and games facilities as well as resources under the purview of Dean Student Affairs.

The Lady Physical Director of VFSTR was part of the winning Indian Kabaddi team in International Kabaddi Championship held during July, 2019 and secured a Gold medal.

The Sports Committee and Maintenance Staff procures requisite resources and maintains `the sports fields, play courts, sports gear, consumables, supporting equipment, gym machinery, grass cutting machines etc.

Campus maintenance services

- **A Project Director, expert in horticulture, supervises all supporting staff and looks after campus beautification works.**
- **The team ensures proper functioning of the sprinkler system, pruning and watering of plants, and looks after the overall maintenance of the lush green campus.**
- **The pedestrian pathways and roads are kept clean and trash is collected as per day wise schedules.**

Utilization Policy and System

Optimum utilization is ensured for all facilities.

- **A logbook is maintained in every laboratory with details on use and recording of any anomalies. Logbooks are periodically reviewed by HoD and inspection teams.**
- **The classrooms are used for Value Added courses, Remedial Learning classes, Preparation for NET/GATE/GMAT, UPSC, etc and other competitive examinations after regular class hours.**

Impact:

With more than adequate infrastructure, regular servicing and timely

maintenance for upkeep with robust systems and procedures, VFSTR is successfully discharging all its activities in a smooth and orderly manner to the satisfaction of all its stakeholders.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

NAAC

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the institution, Government and non-government agencies (NGOs) during the last five years (other than the students receiving scholarships under the government schemes for reserved categories).

Response: 45.18

5.1.1.1 **Number of students benefited by scholarships and freeships provided by the institution, Government and non-government agencies (NGOs) year wise during the last five years (other than the students receiving scholarships under the government schemes for reserved categories).**

2019-20	2018-19	2017-18	2016-17	2015-16
4158	3557	2964	1963	1374

File Description	Document
Upload self attested letter with the list of students sanctioned scholarship	View Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

5.1.2 Average percentage of students benefited by career counseling and guidance for competitive examinations offered by the Institution during the last five years.

Response: 84.35

5.1.2.1 **Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
6250	6686	4468	3900	4229

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document

5.1.3 Following Capacity development and skills enhancement activities are organised for improving students capability 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical fitness, health and hygiene) 4. Awareness of trends in technology

Response: A. All of the above

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document
Link to Institutional website	View Document

5.1.4 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases 1. Implementation of guidelines of statutory/regulatory bodies 2. Organisation wide awareness and undertakings on policies with zero tolerance 3. Mechanisms for submission of online/offline students' grievances 4. Timely redressal of the grievances through appropriate committees

Response: A. All of the above

File Description	Document
Upload any additional information	View Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document
Details of student grievances including sexual harassment and ragging cases	View Document
Link for additional information	View Document

5.2 Student Progression

5.2.1 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 76.35

5.2.1.1 **Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, *etc.)*) year-wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
320	603	780	331	771

5.2.1.2 **Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
448	822	948	424	1006

File Description	Document
Upload supporting data for the same	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document

5.2.2 Average percentage of placement of outgoing students during the last five years

Response: 77.17

5.2.2.1 **Number of outgoing students placed year - wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
1540	1344	1016	837	845

File Description	Document
Self attested list of students placed	View Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

5.2.3 Percentage of student progression to higher education (previous graduating batch).

Response: 10.34

5.2.3.1 **Number of outgoing student progressing to higher education.**

Response: 196

File Description	Document
Upload supporting data for student/alumni	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document

5.3 Student Participation and Activities

5.3.1 Number of awards / medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) during the last five years.

Response: 607

5.3.1.1 **Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
186	123	113	99	86

File Description	Document
Institutional data in prescribed format	View Document
e-copies of award letters and certificates	View Document
Any additional information	View Document
Link for additional information	View Document

5.3.2 Presence of Student Council and its activities for institutional development and student welfare.

Response:

VFSTR has a Student Activities Council, a representative body through which students of the institution work in partnership with the staff and administration to address and resolve their problems related to academics, hostels, sports etc., for a better campus life.

Student Activities Council (SAC)

The Student Activity Council of 80 members is elected annually from among the nominees and selections done through a democratic process involving a panel of faculty members and student representatives drawn from across all departments. It has a President, Vice Presidents, General Secretaries, Member Secretaries and a Treasurer, supported by a sub-structure of various committees, comprising 400 students, who plan, organize and execute a plethora of Co and Extracurricular events and competitions on campus.

SAC members also participate in decision making on issues related to student behaviour and academic performance on campus. They are on Committees like Course Monitoring, Anti Ragging, Sports committee, Srujanankura and Mahotsav, Women Empowerment and Development Cell, Entrepreneurship Cell, etc. Students through different committees participate actively and help to create a vibrant campus culture and a distinct institutional brand in the State of A.P.

Contribution for Institutional development:

- **Development of Library software inhouse (EZ Lib) and updated by students with guidance from faculty in automation of various library**

activities.

- **Participation in CMC meetings to provide feedback and help in improving Teaching-Learning process.**
- **Participation as observers in various apex body meetings like Academic Council, BoM, and help to disseminate information to all students.**
- **Promotion and hosting of all the events.**
- **Coordination and volunteering help to the Training and Placement Cell, which spearheads all training and placement activities.**
- **Conduct of Swacch campaigns on campus and in the neighborhood, thus improving the brand of the institution.**

Contribution to student welfare:

- **Mobilising voluntary contributions and service during natural disasters.**
- **Fostering a relaxed and stress-free campus environment by organizing co-curricular club activities.**
- **Helping the institution to maintain health profile of the students.**
- **Campaigning through gender champions (two girl and two boy students) for creating a gender sensitive culture on the campus.**

Outcome:

- **Students are trained to become good team players and develop leadership skills for implementing all systems, academic, co and extracurricular activities.**
- **Campus is ragging free with no incidence of student unrest or indiscipline or vandalism during the last five years.**
- **On an average 77% of students are successful in securing jobs.**

- **Leadership opportunities and training provided on campus has helped many students to realize their true potential in their careers.**
- **10 start-ups evolved in last 4 years, of which 5 are successful business models.**
- **In last five years more than 600 medals bagged by students in various sports and cultural competitions.**

Thus, students develop into a holistic personality with good leadership and employability skills.

File Description	Document
Upload any additional information	View Document
Link for additional information	View Document

5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

Response: 46

5.3.3.1 **Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
53	53	48	39	37

File Description	Document
Upload any additional information	View Document
Report of the event	View Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

5.4 Alumni Engagement

5.4.1 The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and other support services.

Response:

Alumni are one of the key stakeholders of the institute and the institution enjoys a healthy rapport and lifelong relations with them. The VFSTR Alumni Association is a recognized body, registered as a society in 2015 under the Andhra Pradesh Societies Registration Act, 2001.

The alumni association is composed of:

1. **President**
2. **Vice President**
3. **Secretary**
4. **Treasurer**
5. **Seven Executive Members(Internal)**
6. **Five Executive Members(Alumni)**

VFSTRAA has registered Alumni base of 6758 members with five functioning chapters - three in India and two abroad. Every chapter has its own administrative body and keeps its members connected. The official Alumni Database is maintained at https://vignan.ac.in/alumni/. Also, every department maintains its own database and are in touch with alumni through Alumni connect network, social networking sites etc.

A financial support of INR 104 Lakhs was contributed by the Alumni towards the development of Library, Labs, Research Centers, Medals and Awards etc. Alumni also officiate as members of BoS, deliver guest lectures, facilitate internships, organize Industry visits and extend support to students seeking study abroad.

The Alumni Association conducts activities and supports the alma mater in its betterment. Institute organizes Alumni Meets periodically, once in six months. A team of faculty and students guided by alumni contributed to

develop an ERP system that provides administrative and functional assistance. Distinguished alumni are recognized and honored by the university.

Alumni support VFSTR in the following areas:

1. Academics:

- **Curriculum enrichment through inputs to bridge gap between Industry and academia.**
- **Guest lectures on emerging areas.**
- **Suggestions for improvement of lab components, project works with industry inputs.**
- **As Speakers/ Sponsors during workshops/ conferences.**

2. Placements and Internships:

VFSTR alumni are at middle and executive level positions in various organizations/ industries. They help through:-

- **Delivering Pre-talks of specific companies, to sensitize existing students on required technical skills.**
- **Identifying and bridge gaps in curriculum through industry perspective**
- **Connecting Institution to Industry**
- **Nominating juniors through referrals and facilitating internships**
- **Supporting to new entrants when they join industry.**
- **Refering fellow alumni for lateral job postings.**

3. Entrepreneurship:

- **Organize training camps on campus for four - five days to create**

awareness on registration process of a start-up, address teething troubles, provide financial guidance to seek banks loans etc.

- **Extend small financial assistance to their juniors.**
- **Offer internships to existing students in their own enterprises .**
- **Connect and facilitate district MSME officials to institution.**

4. Higher education:

- **Guide juniors on admission process abroad, desirable scores in GRE, GMAT, IELTS, TOEFL, scholarship opportunities etc.**
- **Facilitate juniors through travel guidance, accomodation etc., when they travel to Australia, Europe, USA etc.,**

VFSTR is thus availing value from the Alumni Network to build its reputation, among the comity of HEIs.

File Description	Document
Any additional information	View Document
Link for additional information	View Document

5.4.2 Alumni contribution during the last five years (INR in Lakhs)

Response: A. ? 100 Lakhs

File Description	Document
Any additional information	View Document
Link for any additional information	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The institution has a clearly stated vision and mission which are reflected in its academic and administrative governance.

Response:

The main focus of the institutional vision is to produce internationally accepted, competitive professionals with emotional balance and social responsibility.

Academic activities to create internationally accepted professionals:

- **Recruitment of well qualified candidates with Ph.D./ PG qualification from IIT's, NIT's and other premier institutions for faculty positions.**
- **Regular curricular revision for inclusion of courses in emerging areas**
- **Project based teaching to promote innovative thinking and skill development**
- **Imparting of Computer Programming skills to make all students industry ready.**
- **Semester long industry internship for students to pursue latest technologies.**
- **Encouraging students for self-study through MOOCs and NPTEL courses.**
- **Special coaching and career counseling for GATE, GRE, IELTS, Civil services etc.**
- **Systematic training for placements right from the second year.**

Administrative measures to create internationally accepted professionals:

- **Participative management from top to bottom.**
- **Involving industry experts into Apex Bodies to bridge gap between**

Industry and Academia.

- **Collaboration with other academic institutions and industries.**
- **Facilitation of students for foreign internships / exchange programs**
- **Inviting industry experts to talk on recent technology trends.**
- **Introduction of credit based physical fitness course**
- **Collecting regular feedback from stakeholders for strengthening systems**

Measures taken to develop socially conscious, psychologically strong and emotionally balanced professionals

Eminent personalities like Nobel Peace Laureate and Social Activist, Mr. Kailash Satyarthi, Supreme Court Judge, Mr. Jasti Chelameswar, Sri M.Venkaiah Naidu, Vice President of India, Madabhushi Sridhar, Former CIC, Govt. of India, Karanam Malleswari, International weightlifter, and other distinguished personalities invited to inspire ethical values among students

- **Social science courses introduced to inculcate social awareness (now also prescribed in NEP-2020)**
- **Course on 'Professional Ethics and Human Values' incorporated into curriculum.**
- **Co and Extra-curricular activities such as Srujanankura, Mahotsav, Anveshan, organized to promote team spirit and collaborative learning.**
- **National festivals and cultural festivals observed, to promote cultural awareness and respect for tradition.**
- **Peer-Mentoring system to promote helping attitude**
- **Extension / social activities undertaken to sensitize students on societal issues**

- **Annual felicitation of parents to inculcate responsibility and values among students.**
- **Rewarding faculty and students for extraordinary social service carried out**
- **Recognizing and rewarding students for exemplary conduct on campus.**
- **Students involved in extension activities in neighboring villages and funded projects with societal relevance.**

Impact:

Excellent placements, equipped with entrepreneurial skills resulted in transforming students into multi-faceted professionals and socially responsible citizens in tune with the Vision of VFSTR

Through such efforts, the institution is able to transform even average students into successful professionals and getting placed with leading multinational companies

File Description	Document
Any additional information	View Document
Link for additional information	View Document

6.1.2 The effective leadership is reflected in various institutional practices such as decentralization and participative management.

Response:

Decentralized and participative style of management adopted for the smooth and orderly execution of all institutional activities. The four apex bodies, supported by 22 committees comprising faculty and students, with clearly defined functions helping in transparent and democratic functioning of the university.

- **The four Apex Bodies, with the Vice-chancellor as Chairperson are:**

- **Board of Management (BoM)**
- **Academic Council (AC)**
- **Finance Committee (FC)**
- **Planning & Monitoring Board (PMB)**

- **50% of external members in apex bodies are drawn from industry and research organizations.**
- **The BOM meets four times, a year, Academic council, three times, Finance committee twice/year, and Planning and Monitoring Board meets once/ year.**
- **The institution has four distinguished advisors:**
  - **Dr. Prahlada Rama Rao, Former Chief Controller, DRDO,**
  - **Dr. Srinivasan Rangarajan, Former Director, ISRO & CTO, Yazmi, LLC, USA,**
  - **Prof. Bayya Yegnanarayana, Former Professor Emeritus, IIT, Madras.**
  - **Dr.M. Malakondaiah, Former Director General of Police, A.P.**

Weekly Meetings of Deans, Directors and HoDs (DDHs):

Wednesday is earmarked for the mandatory weekly meetings of DDH, which are chaired by Vice-Chancellor to deliberate on planning of major activities and resolving any issues encountered like:

- **Communication and dissemination of information for students and staff**
- **Academic calendar**
- **Regular and special class work and academic activities.**
- **research activities (like publications, funded projects, organizing**

conferences, workshops, patent filing, consultancy works)

- **Training and placement activities.**
- **Co & Extra-Curricular student activities.**
- **All administrative activities including budget and expenditure.**

Departmental Meetings:

Every week Head of the Departments conduct meetings with the entire faculty to take feedback on regular activities and take necessary actions.

Functioning of various institutional Committees :

- **Faculty and students actively involved in relevant committees.**
  - **Admissions Advisory Committee**
  - **Anti-ragging Committee**
  - **Technical Skill Development Committee**
  - **Canteen Committee**
  - **Central Purchase Committee**
  - **Evaluation Standards Committee**
  - **Fee Fixation Committee**
  - **Grievance Redressal Cell**
  - **Hostel Governing Body**
  - **International Students Council**
  - **IQAC Committee**
  - **IT Infrastructure Committee**
  - **Library Advisory Committee**
  - **Parents Teachers Association**

- **Research Monitoring Committee**
- **Sports Committee**
- **Students Welfare Committee**
- **Training and Placement Cell**
- **University Discipline Committee**
- **Internal Complaints Committee**
- **Women Development and Empowerment Cell**
- **Women Sports and Cultural Forum Committee**

The functioning of various committees keeping in mind the ethical considerations are duly approved by the apex bodies from time to time.

All the layers of the organization from the apex body members, various university executives, and faculty-student committees, all work in close coordination, upholding the principle of participative management. These coordinated efforts of all the stakeholders, result in a vibrant and stimulating campus culture and harmonious relationship among its members.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic plan is effectively deployed.

Response:

The Planning and Monitoring Board (PMB) of VFSTR provides

perspective and direction for strategic planning and formulating the institutional long term and short-term goals.

The strategic plan of the VFSTR for next five years is given under the following heads:

- **Academic planning**
    - **Project based learning and Self-learning by students through digital resources**
- **Research and Development**
    - **Strengthening of Research and Development through industry collaboration**
    - **Improvement of publications and institutional *h*-index**
- **Faculty**
    - **Promoting culture of continuous learning among faculty**
- **Infrastructure**
    - **Creation of specialized Centres of Excellence, promotion of product and process oriented research with local relevance**
    - **Developing infrastructure for digital learning and environmental sustainability**
- **Work culture**
    - **Improvement in automation and digitalization**

Improvement in the standard of publications (as one successfully implemented activity)

For improving the number and quality of publications, the institution in last few years has adopted the following strategic:

1. **10% of faculty identified as Core Research Team exclusively**

dedicated for research.

2. **Faculty with less number of publications mentored by Core Research Team.**
3. **More faculty with PhD qualification recruited, and existing non-doctorate faculty encouraged to register/complete their PhD.**
4. **Centers of Excellence and Research Centers established in emerging areas like IoT, 5G communications, Robotics, Cloud computing, 3D printing.**
5. **R&D activities are given 50% weightage during faculty appraisal.**
6. **Library subscription to online journals increased, to provide faculty with latest research inputs.**
7. **National and International conferences organized for exchanging research ideas.**
8. **Monitoring system implemented to review weekly research progress on publications at department / individual level.**
9. **Special incentives offered for every SCI/Scopus publications with good impact factor.**
10. **Publications in non-indexed journals discouraged.**
11. **Rs.25000/- Fellowship/ month offered to full time scholars and encouraged to publish papers in their research.**
12. **Two peer reviewed publications in Scopus/SCI journals made compulsory for submission of PhD thesis as policy.**
13. **Extra support provided for undertaking online courses in Coursera, NPTEL etc. in emerging areas of research.**

Impact:

- **Substantial increase in faculty publications from 1.1 to 4.3 per faculty from first cycle to second cycle of NAAC.**

- **The *h*-index of institute improved to 27, from 8 in the earlier cycle of NAAC.**
- **Institute secured around 100 rank in NIRF in the last few years.**
- **Institute recognized as scientific and industrial research organization (SIRO) by Department of Scientific and Industrial Research organization (DSIR), Govt. of India.**
- **The institute granted 12B status by UGC in 2020.**
- **Five programs namely BT, CSE, ECE, EEE and Mechanical engineering accredited by NBA for 2020-2023.**

File Description	Document
Strategic Plan and deployment documents on the website	View Document

6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, etc.

Response:

The institution observes transparency in conduct of all its activities, adhering to policies, rules and procedures outlined in University Manual. It is guided by the apex bodies, BoM, Academic Council, P& M Board, and Finance Committee, to revise and refine its policies from time to time, responding to the changes in Higher Education.

Board of Management (BoM)

BoM provides guidelines and wields policy making authority. Registrar is the Ex Officio Secretary, with two Deans and external members from nominees of the sponsoring Trust, academia, and Industry as members. BoM approves/amends all decisions related to academic, R&D, administrative, infrastructure, personnel, and financial areas.

Academic Council (AC)

The Council approves the curriculum formulated by BoS and oversees maintenance of teaching, training and research standards.It gives directions on methods of instruction, evaluation and improvement of academic and research results and outcomes.

Finance Committee

Finance Officer as ex officio secretary, the committee has external members – one person from Society/Trust/Company, two nominees from BoM, one of whom is the member of the Board. The committee approves fee structure, allocation of funds on major heads and expenditure. Deans and HoDs are part of the annual Budget planning.

Planning and Monitoring Board (PMB)

It helps in formulating road map for the development of the Institute. The board debates/discusses on institute's strategic plans, both short term/ long term to strengthen academics, R&D, infrastructure etc.

Various policies approved by apex bodies:

- **Admission policy**
    - **Admit students with minimum of 70% marks in qualifying examination.**
    - **Provide scholarship for encouraging merit and support weaker section.**
- **Recruitment policy**
    - **Recruit candidate with Ph.D. qualification for faculty positions from premier institutes.**
- **Promotion policy**
    - **Improve cadre ratio through Career advancement scheme (CAS) for eligible faculty.**
- **Financial policy**

- **Allocate 15-20% annual budget for scholarships, 30- 40% for salaries and 8-10% for research.**
- **10 - 15% of annual budget for capital formation towards new laboratories and equipment.**

- **Research policy**
  - **10% of faculty earmarked for research**
  - **Incentives for PIs and Co-PIs of projects and quality publications in peer reviewed journals**
  - **Stipend for fulltime research scholars.**
- **Industrial training policy**
  - **Send students for industry visits/ internships.**
  - **10% of faculty are sponsored for industrial training**

- **New administrative initiatives:**
  - **IQAC strengthened with exclusive team**
  - **Deputy HoDs appointed in every department to oversee lab work**
  - **Directorate of Skill development centre established.**

Service Rules:

- **Faculty and non teaching staff governed by service rules/ regulations.**
- **Effective checks and balances in execution of powers by executives.**
- **Welfare measures implemented as per rules**
- **Vice-Chancellor is final authority on any action not covered by Service Rules.**

Impact:

VFSTR functions effectively and harmoniously, guided by policy recommendations of apex bodies and rational application of rules and procedures in all matters of governance from academics to administration.

File Description	Document
Any additional information	View Document
Link to Organogram of the University webpage	View Document
Link for Additional Information	View Document

6.2.3 Institution Implements e-governance covering following areas of operation

1. **Administration**
2. **Finance and Accounts**
3. **Student Admission and Support**
4. **Examination**

Response: A. All of the above

File Description	Document
Screen shots of user interfaces	View Document
ERP (Enterprise Resource Planning) Document	View Document
Details of implementation of e-governance in areas of operation, Administration etc (Data Template)	View Document

6.3 Faculty Empowerment Strategies

6.3.1 The institution has a performance appraisal system, promotional avenues and effective welfare measures for teaching and non-teaching staff .

Response:

A well-defined appraisal system is put in place for identifying and rewarding good performers among teaching and non-teaching staff. For this, both Internal and External appraisal systems are adopted:

Internal Appraisal system:
A committee comprising Dean Academics and Dean Research & Development, headed by Vice Chancellor reviews faculty performance.

External Appraisal system:
A three member committee appointed by Vice chancellor, with position of Dean and senior professors of reputed institutes for reviewing faculty performance.

Performance appraisal system

Faculty who completed one year of service assessed on their performance, for a total of 100 marks, (50 marks for research, 25 for academics and 25 for administration including counseling duties.

- **Research performance: Faculty with a minimum of 4 SCI/ Scopus/ UGC carelist research publications or projects is awarded 50 marks.**
- **Academic performance: Based on pass percentage of courses taught, if pass percentage greater than 90, faculty obtains 25 marks.**
- **Administrative duties and counseling: In consultation with HoD, the administrative duties handled by faculty member are assessed**

Classification of faculty based on assessment:

- **Category A : 85-100 Marks**
- **Category B : 60-84 Marks**
- **Category C :<60 Marks**

Awards /Incentives to A category Faculty:

- **Incentives worth Rs 20,000 to 100,000 awarded to faculty for strengthening teaching-learning and research activities.**

Support given for B & C category faculty:

- **Mentoring by senior faculty on gaps identified.**
- **Encouraged to participate in conferences and publish research**

articles.

Impact:
The appraisal system has lead to consistent results, and continuous improvement in attainment of POs, placements and research publications

Non-Teaching Performance Appraisal:

A committee headed by Dean ITLS, HoDs and Assistant Registrar evaluates performance of non-teaching staff through annual confidential reports collected from respective Heads.

- **Staff evaluated on various parameters like skill, work attitude, dedication, discipline etc.**
- **Employee efficiency is graded on 5 scales.**
  - **O- Outstanding,**
  - **A- Very Good,**
  - **B- Good,**
  - **C- Average**
  - **D- Not Satisfactory.**

- **Promotions and increments granted based on assessment procedure outlined.**
- **All nonteaching staff trained in all the skill laboratories. Some act as instructors**
- **Financial incentives for works carried out 'beyond the regular duties'.**

Impact:

Annual confidential report and performance appraisal system have helped in motivating them to carry out upto 50% of maintenance work of the institution.

Career Advancement Scheme

Vice-Chancellor appoints selection committee with experts from premier institutions and promotions are offered through committee recommendations.

Welfare measures for teaching and non-teaching staff

- **Free lunch for employees to promote healthy team interactions.**
- **Fee concession for faculty pursuing PhDs at VFSTR**
- **20% of fees as scholarships for wards of staff.**
- **Gift vouchers on staff-birthdays**
- **Gifts in the form of cheques & paid leave for marriage.**
- **Medical & Maternity leave for eligible staff**
- **Subsidized transport for staff**
- **Group Health Insurance with Rs.2,00,000/-coverage**
- **Accident Insurance for all employees and students.**
- **Employee Provident Fund for all staff**
- **ESI facility for staff with low income.**
- **Emergency Health Center for staff and students**

File Description	Document
Any additional information	View Document

6.3.2 Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years.

Response: 64.93

6.3.2.1 **Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
431	376	301	240	228

File Description	Document
Details of teachers provided with financial support to attend conferences, workshops etc. during the last five years (Data Template)	View Document
Link for Additional Information	View Document

Other Upload Files	
1	View Document

6.3.3 Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.

Response: 66.6

6.3.3.1 **Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
64	79	69	63	58

File Description	Document
Reports of Academic Staff College or similar centers	View Document
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).

Response: 71.7

6.3.4.1 **Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
448	393	375	272	248

File Description	Document
IQAC report summary	View Document
Details of teachers attending professional development Programmes during the last five years (Data Template)	View Document
Any additional information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

Response:

Admissions fee, tuition fee, and examination fee from students are the main source of funds for VFSTR. Additional funds from Government and other funding agencies such as DST, DBT etc., are obtained for research. The average expenditure per student mostly matches with average fee per student.

Financial resource mobilization policy:

- **Domestic student fee: Fee is collected from students before commencement of every semester and scholarships announced for eligible students**
- **International student fee: International student fee is fixed adhering to Govt. of India norms. Institute has MoUs with agencies representing Afghanistan and African countries.**
- **Revenue from consultancy: Revenue from consultancy service generated by Centres of Excellence and faculty. Despite locational**

disadvantage, institution collaborates with medium-scale industries to generate 1 – 1.50 Crores every year.

- **Industry and Alumni support: Alumni funds used for creation of incubation centres, research facilities and amenities.**
- **Incubation centre for Start-ups: In the area of agricultural applications, food processing and storage, our alumni are trying to establish start-ups through institution's incubation centre and tie-up with NRDC**
- **Conferences and workshops: A planned budget approved by office of Registrar ensures smooth conduct of conferences and workshops.**
- **Research grants: Research proposals are submitted to Govt. agencies like DST. The funds received on approval of projects are spent as per the approved project report. Research incentives of 15% of the value of the project from the university funds is given as incentive to the PI and Co-PI (65:35 ratio) for the approved projects.**
- **Funds through Sponsorships: Institution seeks out philanthropists and industrialists to seek funds for establishing new laboratories and centres. Sponsorships is one source of funding to augment institute funds for conduct of youth festivals.**

Overall expenditure:

The major heads of expenditure are as follows

- **35% salaries**
- **10% for R&D**
- **15-17% for student scholarships**
- **20 - 25% for other recurring expenditure expenses**
- **Surplus 10 -15% utilized for augmenting infrastructure**

Strategies for optimal resource utilization/ expenditure:

- **ERP developed by faculty-student team is being used extensively.**
- **Preventive maintenance by in-house personnel and through AMCs to avoid costly break down of equipment.**
- **Group health insurance and accident coverage for all staff and students**
- **Specialized expertise of university on software developed, and digital lecture content shared on payment basis with other institutes**
- **'Make or buy' decisions to optimize cost and revenue spent on furniture, electricity, Software etc.**
- **Purchases through tendering system to obtain competitive prices.**
- **Capital budgeting to optimize long term research objectives with establishment of Centre of Excellence and laboratories.**
- **Emphasis on public relations to optimize brand equity and reduce expenditure on publicity.**

Impact:

With the above strategies of mobilization of funds and optimum utilization of resources, the institute is substantially growing in all fronts without compromising on quality.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.4.2 Funds / Grants received from government bodies during the last five years for development and maintenance of infrastructure (not covered under Criteria III and V) (INR in Lakhs).

Response: 691

6.4.2.1 ***Total Funds / Grants received from government bodies for development and maintenance of***

infrastructure (not covered under Criteria III and V) year wise during the last five years (INR in Lakhs).

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	691	0

File Description	Document
Details of Funds / Grants received from government bodies during the last five years (Data Template)	View Document
Any additional information	View Document

6.4.3 Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs)

Response: 1314

6.4.3.1 Total Grants received from non-government bodies, individuals, Philanthropers year wise during the last five years (INR in Lakhs)

2019-20	2018-19	2017-18	2016-17	2015-16
75	90	85	999	65

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Annual statements of accounts	View Document
Link for Additional Information	View Document

6.4.4 Institution conducts internal and external financial audits regularly

Response:

The Institution has a robust financial audit mechanism in place and conducts regular internal and external financial audits. There is a full-staffed finance department with administrative setup, functioning with strict adherence prescribed by accounting standards.

Both the internal and external audits are supervised by a certified Chartered Accountant, who routinely audit the Institute's accounts in compliance with statutory provisions.

External Audit:

The ICAI certified audit firm M/s. Punnaiah & Co., Guntur is the external Chartered Accountant which audits the financial statements and submits annual financial reports. The auditors visit the Institute once every six months and carry out audits of account statements prepared by the Finance team of VFSTR. Any observations made by the team are duly rectified. At the end of every financial year, they certify the final accounts of the institution such as Income and Expenditure Statement, Balance Sheet and schedules forming part of the balance sheet.

The audited financial statements are displayed on the Institution website and this information is also submitted to the University Grants Commission (UGC) regularly.

The institution has not received any objections or clarifications from the income tax department since inception which shows the transparency of process followed.

Internal Audit:

The ICAI certified audit firm Sridhar and Sivarama., Guntur is the internal auditor. They audit the transactions and all books of accounts of the institution continuously and prepare monthly audit reports. Their reports are submitted to the Vice-Chancellor through Finance Officer of the institution. All observations made are duly taken cognizance of and remedial measures adapted.

The mechanisms for settling audit observations

- **Minor corrections in book keeping are settled by the finance department during the audit process to the satisfaction of auditors.**
- **Observations of auditors on minor issues like settlement of advances are resolved by the finance officer before the next internal audit by**

acquiring the required bills..

- **Any major observations of the auditors are brought to the notice of Vice-Chancellor and Finance Committee.**
- **Any write-offs of the unrealized revenues or long pending payments are approved by Vice-Chancellor on merit of the cases.**
- **Any concessions in the unforeseen circumstances like COVID-19 are done by appointing a high level committee with the approval of FC.**

Impact :

There are no serious observations by the auditors in the last five years and all audit reports are available. The following good practices of the institute underlie the clean audit reports.

- **All the transactions are transparent. All receipts and payments are in cheque mode facilitating cashless transactions and verification.**
- **No diversion of funds to the Trust or any other person/ agencies.**
- **The institution follows accounting procedures as per guidelines of ICAI.**
- **The tax deduction at source (TDS) deducted by finance office as per provisions of Income Tax Act.**
- **Powers of disbursement are made transparent. The delegation of powers depends on the position and hierarchy with proper autonomy and monitoring system.**
- **Infrastructure augmentation using the small surplus in annual funds is decided by the management.**

File Description	Document
Link for Additional Information	View Document

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes by constantly reviewing the teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals.

Response:

IQAC has steered the institution in initiating and strengthening many practices that has enabled in overall quality improvement.Speciifc emphasis is on teaching-learning process, methodologies and operations, and learning outcomes.

Quality improvements initiated by IQAC include:

1.Mechanism to screen faculty applications to enable recruitment of candidates studied from IITs and NITs.

2.Strategy for transforming new faculty into successful teachers through FOP/FDPs.

3.Mechanism for verifying faculty preparation and content.

4.Promotion of usage of ICT in delivery of lecture content.

5.Attractive e-content generation.

Following two case studies are presented in more detail which are institutionalised resulting from the initiatives of IQAC.

Case study 1: Transformation of 'New Faculty into 'Effective Teachers' through FOP

Faculty, though recruited from premier institutions are found to be specialized in their chosen areas, but not equipped to handle classes due to lack of training on pedagogy. To make them competent, and confident to handle classes, IQAC advised strengthening of Faculty Orientation programs (FOP) organized by the Directorate of Academic Faculty Development, VFSTR.

·FOP was re- designed to sensitize new recruits on:

- **Philosophy of institution and systems.**
- **Principles of Outcome Based Education (OBE)**
- **Training on pedagogy and ICT usage.**
- **Training on content preparation of courses**
- **Counseling techniques to address emotional, behavioral and psychological, issues of students.**

·Experts:

- **In-house team comprising Deans, HoDs and senior professors**
- **Dean- Academic Faculty Development and team.**
- **External experts who are seasoned teachers, researchers and administrators.**

·Sustenance of Quality

- **Mentoring and continues assessment of the new recruits is done by the senior professors.**

Outcomes:

- **More than 90% of faculty working efficiently with good feedback and research.**
- **Course Outcomes in respective courses fully attained.**

Case Study 2 : Periodic assessment of attainment of POs

- **At the end of every semester, IQAC analyses the attainment of COs, based on the analysis of results of every programme.**
- **IQAC then presents its findings to Dean Academics.**

- **A special review in the DDH meeting is conducted on the results and steps are identified for improvement. This is a continuous process of improvement till the attainment of POs.**
- **IQAC focuses not only on the POs related to the courses but also on other POs like Life-long learning, Communication, Environmental consciousness etc., which is carried out through extension activities such as Special training to Rural Women, Computer literacy for rural students, tree plantation.**
- **IQAC developed templates for auditing of courses and consolidate audit format for entire program to thoroughly check the process starting from mapping of COs with Syllabus content to POs and their attainment.**
- **The whole process is automated.**
- **Based on the audit reports, IQAC identifies the gaps on attainment of POs and informs the same to the concerned faculty as well as HoD to take necessary actions.**
- **The action taken reports are submitted to Dean Academics.**

Impact

With this kind of practice there is a gradual improvement in PO attainment of last three batches, which is very much evident from the success of students in completion of their degree within the stipulated period of time, and obtaining consistent placements.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.5.2 Institution has adopted the following for Quality assurance 1. Academic Administrative Audit (AAA) and follow up action taken 2.Confernces, Seminars, Workshops on quality conducted 3. Collaborative quality initiatives with other institution(s) 4.Orientation programme on quality issues for teachers and students 5. Participation in NIRF 6.Any other quality audit recognized by state, national or international agencies (ISO Certification, NBA).

Response: A. Any 5 or more of the above

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Upload details of Quality assurance initiatives of the institution (Data Template)	View Document
Any additional information	View Document
Paste web link of Annual reports of University	View Document

6.5.3 Incremental improvements made for the preceding five years with regard to quality (in case of first cycle), Post accreditation quality initiatives (second and subsequent cycles).

Response:

IQAC continuously monitors all activities related to academic, research, and policy implementation of VFSTR. The assessment of VFSTR by NAAC in the first cycle, and specific recommendations made by the Peer committee are studied carefully by IQAC, and incremental improvements are recommended in different areas as below:

Academic Domains:

- **Project based curriculum**
  - **During the second cycle period of NAAC, covering time-period, 2015 to 2020, the curriculum of all programs was revised twice.**
  - **Industry internship was given prominence in R16 as a main element in final semester.**
  - **The R19 (UG B.Tech.) curriculum allocated 14% of total credits for project based learning, categorized as intra-departmental, inter-**

disciplinary, and society oriented projects .

- **Skill enhancement**

VFSTR in association with A.P Govt. established eight skill development laboratories. The 1styear students carry out a number of skill-learning activities/experiments in these labs.

- **Introduction of value-added courses in emerging areas**

In response to the exponential growth of technology in various engineering fields, IQAC has suggested the inclusion of more courses as short-duration value-added courses. 370 value-added courses are delivered by industry experts including in emerging areas.

- **Improvement of digital resources in the library**

Implementation of digital technologies and utilization of computers is the trend in the library systems. IQAC recommended VFSTR library to concentrate more on the improvement of digital content and digital access to latest knowledge resources.

Same was implemented by Library Services department very effectively. Half of the library annual budget now spent on acquisition / subscription to digital resources

- **Research in thrust areas**

IQAC recommended identification of one or two thrust areas of research in each department which improved research outcomes in terms of publications, research scholars, and projects in last five years

- **Institute Industry interaction**

IQAC specifically recommended that faculty should be more involved in

industry interaction. Based on this, the institute decided to depute 10% of faculty to industries during inter-semester breaks to spend 2 to 4 weeks in industries identifying industry problems and also latest technologies employed.

83 experts from and research institutions are inducted as BoS members out of a total of 161 BoS members of VFSTR.

Administrative Domains:

- **Necessity of a strategic plan**

IQAC insisted on a strategic plan for institutional development in the next 5 to 10 years. A five-year strategy plan was prepared in 2018 integrating various initiatives of the institute in areas of academics, research, faculty, infrastructure, work culture etc

- **Strengthening of e-governance**

e-governance as an effective tool optimally used to improve academics for incorporating digital content,conducting research and in administration by having records. e-governance in administration, student admission, student support, examination and library is implemented to maintain databases effectively.

- **NBA accreditation**

IQAC strongly recommended that all eligible programs undergo NBA accreditation. Accordingly the institute applied for accreditation of 5 UG programs – Biotechnology, CSE, ECE, EEE and Mechanical engineering programs. NBA reviewed and accredited the five programs for a period of three years, 2020-21 to 2022-23.

The actions taken against the recommendations of peer review committe of NAAC are given in the annexure 1.

File Description	Document
Any additional information	View Document

NAAC

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

Response:

VFSTR promotes gender equity and provides equal access to both genders in all activities.

A summary of last five years' activities promoting gender equity:

- **Women Empowerment and Development Cell (WEDC) is in place to maintain gender equity and promote gender sensitization on campus.**
- **Any issue/grievance related to sexual harassment or discrimination is addressed by the Internal Complaints Committee (ICC).**
- **Women hold various positions as Deans, HoDs etc., and participate in decision making. Women constitute 26% of total faculty and 22% of non-teaching staff.**
- **WEDC organizes regular campaigns related to gender issues, nutrition, maternal and child health.**

Awareness on Gender Equity in Curricular and Co-Curricular activities:

1. **Sessions on Gender sensitization, respect for women in I year bridge course**
2. **Course entitled "Human Values Professional Ethics and Gender Equity" introduced for all branches**
3. **Exclusive sessions on Special Rights of Women and punishments prescribed following Vishaka guidelines.**
4. **Awareness program on "*Legal Rights of Women*" (such as Dowry Prohibition Act, Protection of Women from Domestic Violence Act,**

Maternity Benefit Act, Minimum Wages) with support of National Commission for Women (NCW)

5. **Awareness debate on "*How to Fight Eve Teasing and Sexual Harassment*", telecasted live onSakshi News Channel.**
6. **One day work shop on "Self Safety and Security" with VANGUARDZ Pro Skills, Hyderabad.**
7. **Organized "Women's Leadership" Symposium**
8. **Organized student rallies "Save Girl Child", "Stop Girl Child Abuse", *and Pinkathon- Health Fitness programme* to promote health consciousness among women.**
9. **Hands on session on "*Safety app*" for Girls,Active Learning Solutions Pvt.Ltd, Haryana**
10. **Games and sports competitions are held for women faculty and girl students separately.**
11. ***Gender champions (2 boys & 2 girl students) selected every year to promote gender sensitivity on campus.***
12. **Women Entrepreneurs like Padma Shree Ms.Kalpna Saroj, CEO, Kamani Tubes, social workers, Legends in Sports, and eminent people from other sectors are invited to deliver lectures to students.(annexure…)**

Facilities for women on campus:

- **Each block of academic campus has special girls room with facilities like cots, sanitary-napkin vending machines, first-aid kits etc.**
- **Primary health care staff in girls' hostels, *annual health check-up* for girls and women employees.**
- **Separate sports and games facilities in the girls' hostel.**
- **Security staff for ensuring safety for girls/women on campus.**

- **CCTV surveillance is provided for safety of the girls and women.**
- **Nutritional food for the girl students who participate in sports and games.**
- **Special counselling by psychologist for the necessary students.**
- **Enough security provided for girl students to reach their door step, during campus events, which go beyond 7 PM**
- **Maternity Leave provided for women staff.**

Impact:

- **These efforts help to promote gender equity; there are no untoward events on campus since its inception.**
- **Active participation and exhibition of leadership qualities of girl students in all events**
- **On campus events/functions organized witnesses' equal participation of both genders.**
- **Equal employment opportunities provided to both genders which is reflected in the placement record.**
- **46% of admitted students in institution are girls,; an evidence of gender equity.**

File Description	Document
Specific facilities provided for women in terms of: a.Safety and security b. Counselling c. Common Rooms d. Day care center for young children e. Any other relevant information	View Document
Annual gender sensitization action plan	View Document

7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

1. **Solar energy**
2. **Biogas plant**
3. **Wheeling to the Grid**
4. **Sensor-based energy conservation**
5. **Use of LED bulbs/ power efficient equipment**

Response: A. 4 or All of the above

File Description	Document
Geotagged Photographs	View Document
Any other relevant information	View Document

7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- **Solid waste management**
- **Liquid waste management**
- **Biomedical waste management**
- **E-waste management**
- **Waste recycling system**
- **Hazardous chemicals and radioactive waste management**

Response:

The institution is a green campus that adopts eco-friendly practices for waste management (applying the 3R principle).The total solid waste generated on campus is approximately 1.5 ton/ day which comprises organic waste, recyclables, sanitary, e-waste and hazardous wastes, which is judiciously processed and managed on the university premises.

Solid waste management

- **Segregation at source is routinely carried out on campus by using color coded bins for collection of organic, biodegradable waste, recyclable waste and sanitary waste.**

- **The food waste from canteens and food joints are regularly collected and used as input for the biogas plant setup in the campus. The sludge from the plant is used as manure for horticulture and agricultural purpose, through agents who procure it.**

- **Recyclable plastic waste, like pet bottles, cartons and stationery, is collected and stored in a shed and sold, monthly once to vendors for recycling.**
- **Selected plastic bottles are shredded into thin threads and used in novel concrete experiments using unconventional materials.**
- **Utilization of Bio-degradable plates especially during the events.**
- **Green and clean campaigns are conducted once every three months.**

Liquid waste management

- **The rain water run-off is controlled and collected into water pond to improve ground water recharging.**
- **Roof-top rain water management system is in place.**
- **The sewerage lines are regularly cleaned and bleached for maintaining hygiene and environment.**
- **Any liquid disposal from laboratories into sewerage lines is monitored to check that no hazardous chemicals are released through pipelines.**
- **Waste water is also used for gardening purposes.**
- **A SewageTreatment Plant with a new wet lands concept is established with a 600KL sewage treatment capacity.**

Biomedical waste management

- **Sanitary, bio medical, and animal house related wastes incinerated inhouse.**
- **Large amount of biowaste, whenever generated, are disposed off taking the support of external service providers.**
- **E-Waste Management**
- **IT services of VFSTR regularly monitors E-waste generation**

by routinely collecting, sorting and disposing off waste.

- **E-waste related to computers and peripherals are disposed using buy-back arrangements.**

Hazardous chemicals waste management:

- **The acids used in chemical experiments are highly diluted before disposal into sewerage lines.**
- **The hazardous chemicals used, in small quantities, are collected and periodically disposed off with due care in uninhabited waste lands.**

Summary

VFSTR has an effective waste management system in place where segregation is carried out at source to be recycled, reused and disposed of. The recyclable waste is sent to recyclers and organic waste is collected for composting purpose and put to use in the Biogas facility. The sanitary waste and bio medical waste to be incinerated is handed over to a certified agency for incineration. The waste water emanating from different sources is treated and used for gardening purposes. Waste recycling and utilization is set up in the form of biogas unit. Awareness programs on waste management are conducted on campus for students, faculty and staff to promote environment friendly practices as part of celebration of the year.

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	View Document
Geotagged photographs of the facilities	View Document
Any other relevant information	View Document

7.1.4 Water conservation facilities available in the Institution:

1. **Rain water harvesting**
2. **Borewell /Open well recharge**

3. **Construction of tanks and bunds**
4. **Waste water recycling**
5. **Maintenance of water bodies and distribution system in the campus**

Response: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document

7.1.5 Green campus initiatives include:

1. **Restricted entry of automobiles**
2. **Use of Bicycles/ Battery powered vehicles**
3. **Pedestrian Friendly pathways**
4. **Ban on use of Plastic**
5. **landscaping with trees and plants**

Response: Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	View Document
Any other relevant documents	View Document

7.1.6 Quality audits on environment and energy regularly undertaken by the Institution and any awards received for such green campus initiatives:

1. **Green audit**
2. **Energy audit**
3. **Environment audit**
4. **Clean and green campus recognitions / awards**
5. **Beyond the campus environmental promotion activities**

Response: A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Certification by the auditing agency	View Document
Certificates of the awards received	View Document
Any other relevant information	View Document

7.1.7 The Institution has disabled-friendly, barrier free environment

1. **Built environment with ramps/lifts for easy access to classrooms.**
2. **Disabled-friendly washrooms**
3. **Signage including tactile path, lights, display boards and signposts**
4. **Assistive technology and facilities for persons with disabilities (Divyangjan) accessible website, screen-reading software, mechanized equipment**
5. **Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading**

Response: A. Any 4 or all of the above

File Description	Document
Policy documents and information brochures on the support to be provided	View Document
Geotagged photographs / videos of the facilities	View Document
Details of the Software procured for providing the assistance	View Document
Any other relevant information	View Document

7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).

Response:

- **VFSTR adopts many practices, curricular as well as Co and Extra-curricular for promoting cultural harmony, mutual tolerance, and appreciation among students and faculty hailing from different cultural and social backgrounds.**
- **Constitutional provisions for tolerance, harmony and related issues are drafted in special booklet and distributed among students and**

faculty. Invited talks on importance of tolerance and harmony are organized for holistic development of students.

Efforts of the institution to promote tolerance and harmony:

1. **Institution welcomes students and faculty from diverse backgrounds and treats them equally without any discrimination on gender, caste or religion.**
2. **Institution conducts admission as per Reservation Policy of GoI.**
3. **Right from allotment of hostel rooms, students are encouraged to live together in a spirit of friendship and cooperation.**
4. **Inclusive environment is built through events like "Rejoice"-Fresher's Party where students mingle freely.**
5. **Mutual tolerance instilled among students right from bridge course, students are counselled on need to rise above narrow communal affiliations.**
6. **Credit-based Humanities and Social Sciences courses are incorporated into engineering curriculum.**
7. **Social temper cultivated among students through civil services classes to select students keen join IAS and IPS.**
8. **Constitutional provisions promoting equality, tolerance, harmony, gender equity disseminated at various student gatherings.**
9. **Communal harmony promoted through celebration of Dussehra, Ramzan, Semi-Christmas, Onam, Utti-Utsav etc.**
10. **Extension activities to uplift socially backward students of neighbouring schools.**
11. **Institution hosts various co & extra-curricular, cultural events to promote harmony and inclusiveness.**
12. **Develop community service in students through organizing health**

camps for villagers to instil social responsibility and spirit of service.

13. **Students encouraged to take up society centric projects which are exhibited during National Tech fest, like "Srujanankura"**
14. **Republic day, Independence Dayetc. celebrated to foster nationalism and spirit of unity.**
15. **Teachers Day, National Science Day, and Engineer's day hosted to provide inspiration through success stories of Dr. Sarvepalli, Sir Mokshagundam etc.,**
16. **Institution has minority, SC/ST and OBC welfare Cells with senior faculty members of different categories and religions as members.**
17. **Every committee has members of all faiths, cultural regions during conduct of events like srujanankura, Mahotsav etc.,**

Inclusiveness irrespective of culture, region, community and other consideration:

Equitable representation of students and faculty in all 22 university committees to participate in administrative activities of institution.

Impact:

The outcomes of above good practices of the institution are reflected below:

- **Students from backward communities about 60 %**
- **30% faculty from other states and nearly, 40 % from OBC/ SC/ST categories**
- **Faculty diversity ensured (48% faculty pursued higher education from outside the state), and all promotions are merit-based.**
- **No instance of communal clashes since inception, despite the area being communally sensitive.**
- **Students representatives in Grievance Redressal, Anti-Ragging and**

International Students Council etc. irrespective of backgrounds.

- **International Student Council organizes festivals and national days of various countries to promote cultural heritage.**

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document

7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

Response:

The institution generates awareness among students on constitutional rights and duties through various campus events and endeavours to shape them into responsible citizens.

- **Preamble of Indian Constitution is displayed at important locations in the institution**
- **Compulsory course on Constitution of India is offered in the engineering curriculum, where students are provided basic understanding on values like equality, rights, duties, rule of law and other constitutional obligations.**

Awareness on Traffic rules

- **Awareness session on Safe Driving, Traffic Rules and legal implications of rash driving organized during *Road Safety Week* by inviting RTOs.**

Celebration of National days:

- **Republic day, independence days celebrated for 3-5 days**

conscientiously to sensitise students on constitutional obligations like rights, duties etc., and to develop nationalism.

- **Veteran freedom fighters are felicitated on campus to develop patriotic spirit.**

Gandhi Jayanthi

- **VFSTR celebrates Gandhi Jayanthi every year for one week starting from 2nd October to foster values of non-violence, eradication of untouchability, hindu-muslim unity, and truthfulness among students and faculty.**
- **150th birth anniversary of Mahatma Gandhi organised on different themes- Communal Harmony, Eradication of untouchability, Experiments with Truth, Non-Violence by inviting distinguished persons like Honorable Vice-President M.Venkaiah Naidu; former judge of Supreme Court, Jasti Chelameshwar; Shri.Madabhushi Sridhar; Shri A.SreedharBabu, IAS; Prof. Koteshwara Prasad; Shri Bhupal Reddy, IRS.**

Mock Parliament @ VFSTR

- **Mock Parliament is conducted every August in which students team up as batches and debate on the given theme.**

Nobel Peace Laureate -Dr. KailashSatyarthi- To develop the spirit of compassion

- **Nobel Peace Laureate, Dr. KailashSatyarthi invited for educating students on child rights and child protection in 21st Jan.2020.**
- **He enlightened students on severity of the problem and administered a pledge to fight against child labour.**
- **VFSTR signed an MoU with Kailash Satyarthi Children Foundation for establishing Child Rights Centre in the university.**

Awareness during General Elections :

- **Awareness on importance of voting for nearly 1 lakh people in neighboring villages**
- **Student volunteers deputed to support Election Commissioner in conduct of free and fair General Elections in 2014 and 2019.**

Responsible Use of Social Media and Fact Checking

- **Expert talk organized on responsible use of social media and be aware of fake news**
- **Experts demonstrated on how to limit spread of fake news, apply self-restraint on forwarding the fake news on social media.**

Sensitization among Faculty:

- **On plagiarism in publications**
- **Respect for women**
- **Developing religious and communal harmony**

Impact:

- **Not even a single ragging complaint lodged on any student in the campus.**
- **Employees and students aware of values, rights and duties, and equality provisioned in constitution.**
- **Students encouraged to take part in NSS, NCC, outreach and extension activities in neighboring villages.**
- **Gandhi Jayanthi organizing for fostering Gandhian Values among staff and students.**

- **Sri Satyarthi praised students for their enthusiasm and understanding on contemporary social problems.**
- **Value system is maintained in all aspects.**

7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

1. **The Code of Conduct is displayed on the website**
2. **There is a committee to monitor adherence to the Code of Conduct**
3. **Institution organizes professional ethics programmes for students, teachers, administrators and other staff**
4. **Annual awareness programmes on Code of Conduct are organized**

Response: A. All of the above

File Description	Document
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	View Document
Code of ethics policy document	View Document

7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

Response:

The institution organizes national and international commemorative days, events and festivals to promote a spirit of nationalism and patriotic fervour among students and faculty. Institute has constituted the "National and International Days Celebration Committee" comprising of faculty, staff and students. This committee organises national days such as Republic Day, Independence Day, Gandhi Jayanthi, Teachers Day, and Engineers' Day etc., and festivals of all faiths.

Eminent personalities like veteran politicians, freedom fighters, retired defence personnel, public servants, and judges are invited as guest speakers to address the gathering of faculty and students. Elocution, Essay Writing,

Quiz, Debating and Patriotic song competitions are conducted for students. NCC cadets present the Guard of Honour.

Birth anniversaries of eminent freedom fighters, social reformers and great Indian personalities are observed to commemorate their selfless-service and sacrifices. Community Service such as campus cleaning, tree planting etc., are taken up on these occasions.

International Women's Day is celebrated on 8th March every year to create awareness and educate student community on the challenges faced by women. Renowned personalities are invited and felicitated for their remarkable contribution to the women's cause.

International Yoga Day is conducted on 21st June to spread awareness on benefits of yoga. This year's theme, "Yoga at Home and Yoga with Family," was chosen bearing in mind the current pandemic. Benefits of Yoga like – Boosting of immunity, relieving stress and anxiety, weight loss, Boosting cardio-vascular system etc., are explained.

Environment Day is celebrated every year on 5th June to instil ecological consciousness and responsible conduct among individuals, enterprises, and communities in preserving/conserving of the environment. These Days are celebrated with the annual themes as the focus in the activities.

Earth Day is celebrated on 22nd April to raise awareness among students about climate change and global warming. The day inspires to act towards the protection of the environment and focus on the need for conservation. Earth Day is recognised as the largest civic event in the world.

National Science day and Mathematics day are commemorated on 28th February, and 22nd December every year respectively with an objective to propagate science and its application to the students by inviting eminent scientists and industrialists to discuss all the issues and implement new technologies for the development in the field of science. The birthday of famous mathematician Shri. Srinivasa Ramanujam is organized every year as Mathematics Day. All activities, efforts, and achievements in the field of science for human welfare are displayed in the campus.

Festivals :

Institution celebrates all cultural festivals like Pongal, Dussehra, Christmas, Ramzan, Id-ul-fitr and Onam with gaiety by involving all faculty and students. The themes and significance of these festivals are explained to nurture cultural value in students.

Impact:

The above celebrations and festivals promote national pride, cultural values,scientific temper, and religious harmony among students.

File Description	Document
Geotagged photographs of some of the events	View Document
Annual report of the celebrations and commemorative events for the last five years	View Document

7.2 Best Practices

7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

Response:

Title : Faculty Development Programme

Introduction:

VFSTR strongly believes that Human resources are an important element that is needed to realize the Institute's goals and aspirations. Hence, VFSTR is trying to maintain a highly skilled and efficient academic faculty in order to achieve excellent standards in all the disciplines offered by the Institute. In view of this, the Institute recruits nurture, and retain the best faculty to meet the changing needs of the curriculum, teaching, research, and consultancy.

The shortage of faculty is the basic problem for all the institutions including the premier institutions. It is also a fact that well prepared and "ready made" faculty will not be available at any given point of time. Hence Faculty Development Programme is considered as a serious activity

to prepare and mould the faculty.

Objectives :

The objectives of the FDPs are to enable faculty to:

- **Understand the significance of higher education, in the global and Indian contexts**
- **Acquire and improve the art of teaching at the university level to achieve goals of higher education, and to be effective in the transfer of knowledge**
- **Accord importance to research activity in addition to academic activity**
- **Understand the linkages between education and socio-economic,and cultural development.**
- **Keep abreast with latest developments in their specific subjects, and acquire knowledge and skills in new and emerging areas**
- **Understand the organization and management of the Institute and to perceive the role of teachers in the total system**
- **To familiarise with the philosophy and culture of the institution, especially to make every program student-centric.**
- **To work as a matured counsellor to the students, and to contribute to their overall development.**
- **To train on the basics of administrative work.**
- **To familiarize ICT usage in teaching and also in the preparation of digital content to promote self-learning.**

Context:

The university recruits teaching faculty by adopting a rigorous three tier process of written test, technical interview and a final interview by the selection committees.Utmost care is taken in recruitment of teaching

faculty by constituting selection committees with experts from premiere institutions like IITs, NITs, State and Central universities. The Institute also conducts special drives at IITs and NITs to recruit well qualified and competent faculty.

A qualified and competent teaching faculty enhances the breadth, depth and quality of teaching, research and consulting. The role of a teacher is not only to provide instructions to the students but also to develop their overall personality. The faculty plays pivotal role in shaping the career pursuits of the students, mould them into professionals, and responsible citizens.

It is observed the most of the fresh recruits :

- **are not familiar and thorough with all the concepts of the subjects they have to teach.**
- **Need to understand the students and their attitudes**
- **their approach with the students is either too rigid or too much liberal.**
- **do not have any idea of counselling and mentoring system**
- **lack team spirit to work with their colleagues.**

If the faculty is directly put on the job with this kind of deficiencies, they may be failure in the class leading to unhappiness in the campus.

To avoid this kind of problem and also to transform them into effective and efficient faculty, Faculty Development Programme is planned, well designed, and conducted very seriously in the Institution.

The Practice:

VFSTR has an "Academy for Faculty Development (AFD)" to organize the Faculty Development activities. Keeping in view the larger scope and requirement of these activities, it was upgraded to Directorate of Academic Faculty Development in 2017, with a Dean heading the Directorate. This

Directorate plans and organizes all the Faculty Development activities.

FDP is being practised in the following ways :

1. **Faculty Orientation program:**

This is mostly done by a dedicated in house team along with administrators like Registrar, Deans, Vice-Chancellor, and also involving the best academicians from outside.

Components of the program:

1. **Creating awareness on the comprehensive role of the teacher ie., teacher, researcher, counsellor, and administrator.**
2. **Preparation of the quality content and its process of having complete idea of entire subject and connectivity between different concepts.**
3. **Presentation of the content in the class room using various teaching methods and ICT technology.**
4. **Details of delivery of content with stress and pause, support of teaching aids.**
5. **Method of conducting group discussions, seminars, and making them interactive.**
6. **Explaining about the importance of counselling system giving various illustration of the issues of the students.**
7. **Creating awareness of the importance of research for the career growth.**
8. **Correction of attitudes for the smooth landing in the department.**
9. **Creating awareness on administrative roles like conducting workshops, seminars, guest lectures, conferences, motivating the students to conduct the events etc.**

After the completion of the above program the faculty members are introduced to the department by allotting mentor for hand holding till they get settled.

2. Faculty development program by NITTTR:

External agencies like NITTTR Bhopal and Chandigarh and other experts are invited to develop:

- **Teaching and evaluation methods oriented towards outcome-based education**
- **Various modes of setting the question papers**
- **Other evaluation methods suitable for attaining POs and PSOs.**
- **Methods to encourage the self-learning among the students.**

3. Faculty development through exposure to the industry:

10% of the faculty at the end of each semester deputed to the industry for 2-4 weeks for the following purposes:

- **To identify the industrial requirements and to enrich the curriculum.**
- **To acquire skills and transfer the same to students through laboratories.**
- **To negotiate with the industry for the consultancy or collaborative work.**
- **To acquaint with industrial best practices and to incorporate the same in the institution.**

4. Faculty Enrichment :

The institute has initiated special programmes intune with the recent changes and also to prepare the faculty for the future on the following:

- **Artificial Intelligence(AI),IoT, Machine Learning, Data science etc.to**

all the faculty across the branches

- **Special incentives to the faculty who complete NPTEL, Coursera courses in the emerging areas.**
- **Special program on teaching of programming skills to the faculty of other departments.**
- **Training on writing the papers for reputed journals and project proposals.**
- **Methods of undertaking inter-disciplinary projects.**
- **Process of planning and executing conferences and workshops.**
- **Process of executing extension and consultancy activities which are socially relevant.**

Directorate of Academic Faculty Development organized a total of 16 FDP Programmes during 2016-2019, with a total participation of 903 participants. In addition, it organized 176 specialized training programs with the help of different Departments (in-charge of various Programs) during the same period for the development/enrichment of the Department-specific Faculty. 160 Faculty members from different Departments are given specialized training for two weeks in Computer Science / Engineering courses in emerging areas. Faculty worked in industries for 2-3 weeks in the last five years. In fact, the FDPs is a continuing activity in VFSTR to the benefit of the Institute and Faculty.

Evidence of success :

- **90% of the faculty are in "A" category having more than 90% of feedback from students continuously**
- **The institution always maintains outcome of academics as more than 90%**
- **Very minimal number of complaints from the students or the student committees on the quality of teaching.**

- **Though the standard of students is in varied levels during the admission time, ultimately more than 80% of the students are placed in multi-national companies.**
- **VFSTR has not witnessed even one case of disturbance on the campus because of the matured counselling.**
- **Every faculty member has published minimum 1 paper per annum in the last 2 years which is considered to be a very healthy development for faculty as well as the institution.**

Problems Encountered and Resources required:

- **Payment of full salaries during the induction time and also during the industrial visits costs Rs.80-90Lakhs per year to the Institute.**
- **Charges for the external agencies like NITTTR and external experts are very high to the tune of Rs.10-15 Lakhs.**

Impact

This kind of process may be emulated on a large scale for the benefit of Indian education system as a whole, as every institution (big or small without any exception) is seriously suffering from the lack of competent faculty. As it is mentioned it should be done through a multiple approach involving the in-house people, external agencies and also the industries for the real development of the faculty.

The Institute is continuously striving to further strengthen the faculty so as to bring balanced growth in all disciplines on one hand, and achieve excellence in the specialized fields on the other hand. To strengthen the faculty, the Institute is inviting scholars of high academic standards in various subjects, to associate with the Institute. Further, the services of the aforesaid experts will be utilized to inculcate research and consulting culture among the younger teaching faculty.

Title : Care for Health and Fitness of students

The health of the students is a special focus of the Institute always, appreciating the need to sensitize and train students on the importance of building a robust physique and up-keeping their health. VFSTR has converted its standard practices in to a special course on Physical Fitness allotting three credits in its R19 curriculum. The course is aimed at helping students to develop into all round, physically robust and psychologically balanced professionals, so that they can enjoy sustained success in both professional and personal spheres of their lives,

Objectives:

1. **To contribute healthy and knowledgeable professionals to the nation.**
2. **To enable all students to adopt a healthy lifestyle, so that they can continue to conduct their duties with high energy and stamina all through their lives.**
3. **To create a lifelong consciousness on health.**
4. **To maintain a happy and positive outlook among faculty and students.**
5. **To make students physically fit to ward off any disease or epidemics in future.**
6. **To allot Credits to motivate and encourage students to take training on physical fitness more seriously.**

Context:

- **It is observed that 40 - 50% of young students of age 18 – 19 years admitted into the Institute do not enjoy robust constitution or enjoy good health in the holistic sense of the word.**
- **A fair number of them (especially girl students) are found to suffer with anemia and in some cases with obesity. This could be due to the prevailing conditions in the schools without play grounds and no time for any kind of exercises. This is also aggravated due to the changes in the life styles at homes living in the small apartments without proper ventilation and also consuming junk foods etc.**

- **Though India takes great pride in the fact that is a demographically young country, the health of the youth leaves a lot to be desired. There is a need to initiate some measures to address this issue.**

The practice:

1. **All the students, after admissions are tested by the Physical Directors on their capacity for physical exertion, like their walking and running capacity and other physical attributes.**
2. **Students' health records are created at the time of admissions.**
3. **Students are motivated on physical health and its impact on their overall professional development by the faculty members, counselors along with physical directors as well as by external experts.**
4. **The required time is provided in the time table for students to use the ground/athletic track. Students have to compulsorily participate in running exercises, besides their participation in sports and games based on their interest.**
5. **Those who fail to meet the minimum standards are asked to come to the ground regularly and put through a regime of exercise over what is provided in the time table.**
6. **Students are given special food like ground nut bars, dates and other dry nuts as well as iron-rich food in the hostels.**
7. **A detailed system is available to track and record the development in the health of the students.**
8. **Walking and running times of a standard distance are selected as the criteria for awarding credits because these two parameters are common to all and does not require any prior talent.**
9. **Different batches of students are initially tested for the average time of running and walking for specified distances, and the parameters for evaluation at the end of the semester are evolved.**

10. **Participation in 50% of the total physical fitness classes in the ground is another parameter for securing the credits.**
11. **Students are tested once in 45 days to record the improvements in their running time, oxygen levels, and participation in sports/ games etc.**
12. **Final evaluation is carried out as a part of end semester examinations.**

Evidence of success:

1. **Number of students with anemia / obesity / general health problems is found to be reduced from 40% to 5% by the end of the academic year.**
2. **Performance in academics is found to have improved owing to sound health.**
3. **Substantial improvement in confidence levels of students and their happiness is noted.**
4. **Change in life style of the students is observed with respect to quality of food intake and exercise patterns. The Institute is happy at this outcome though an additional expenditure of Rs.40-50 Lakhs per year is required for the hostels.**
5. **Number of students with ill health on any given point of time is less than 0.1%.**
6. **Even during the Covid-19 period, no student has reported contracting the virus even though national figure of total Covid-19 patients has been roughly 0.5% of the total population.**
7. **The participation of the students in online classes and in online examinations during the Covid-19 period is more than 95% which is evidence of their good health.**

Problems encountered and resources required:

1. **Resistance among students and their parents due to lack of awareness**

on physical fitness.

2. **Some students, particularly girls, expressed inhibitions to participate in the exercises.**
3. **An investment to the tune of Rs.70-80 lakhs was needed on the sports facility, and equipment for an Open Air Gym facility.**
4. **Requirement of a good play ground and basketball courts costing roughly Rs.40-50 lakhs, and also the requirement of investment on consumables.**
5. **Requirement of extra spending on employing Physical Directors and Coaches.**
6. **It is challenging to identify and to recruit the relevant coaches.**
7. **Extra expenses are to be incurred for providing special food.**
8. **A lot of discussion with experts was required, to carryout trials with students to arrive at the parameters for evaluation.**

This programme is in tune with FIT INDIAmissionof the Hon.Prime Minister, which was introduced in the Institution much earlier, even before his call. This may be one of the good practices fit to be introduced in all other higher educational institutions to make the country a robust and healthy nation.

File Description	Document
Best practices in the Institutional web site	View Document

7.3 Institutional Distinctiveness

7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Response:

Access to quality higher education to the rural society leading to regional

development.

Vision statement of the Institute sketches its own distinctiveness on a larger map. As per the Vision statement, the institution prepares internationally acceptable and employable professionals. In addition, the institute aims at preparing professionals with emotional balance, psychological strength and social responsibility and to make them good citizens and good human beings.

Context:

Many studies and surveys in the country revealed most of the professionals are knowledgeable but their attitudes are not fully rational due to emotional imbalance. Some of the students of high caliber (who face competitive exams like JEE) are not able to cope up with the pressures of life and going in to depression. The ethical and human values at the individual and at the organization level degenerated to a level of creating disorderly society. VFSTR recognized these factors very early and formulated its Vision statement giving stress on development of psychological strength along with high quality academics.

The Practice:

60% of the students who join VFSTR hail from agricultural families – mainly from socially and economically backward classes. The institute is concentrating on three important aspects – quality academics, psychological balance, and social responsibility. These three aims are essential because large number of students who join the institute are those who aspire for higher education from the rural families, most of them being first graduate-attempts from their families. Their background causes low levels of communication skills, and lack of confidence, and low awareness on social problems.

The institute implements its Vision through the following steps:

Step 1: Scholarships and Road map for the students

Nearly Rs.17 crores is given annually as scholarship to about 30 – 40% of the students. Some of the students are supported with subsidy in hostel fee

also.

Special efforts are put in the bridge course itself to instill confidence by giving the large number of examples of people who rose from rags to riches. They are given a very clear road map for the next four years.

Step 2: Development of Communication and confidence

Improving communication skills and increasing the confidence levels is essential for the start of their growth in the Institute. Hence a 100 hour special course on English is conducted, so that they will be more confident and communicative.

The course is an outcome of an MoU with Cambridge University which gives certificates to the qualified students in their English language exams. This step is a great leap forward for them.

Step 3: Foundations for strong academics

As the students who join come with varied levels of academic strengths, the Institute has to carefully plan the details of quality education. Rigorous process is followed to recruit faculty, and serious training is given to make them effectively handle the students. Adopting quality content and teaching methodologies, along with strong academic scrutiny systems enables the students to be knowledgeable on par with any premier institutes.

Step 4: Development of Attitudes such as team spirit, inter-personal relations.

The counselling and mentoring system of the institution helps the students to overcome their economic issues, family issues and inferiority complex etc., and enable them to compete with others. One faculty is allotted roughly 14 students to concentrate and counsel. These counsellors study the students progress in academics, and their social and family issues which could be distracting from their studies. They plan, advise, and implement corrective measures to improve the students on all the fronts.

Some of the bright students are allotted as mentors to the weak students.

Step5:Psychological, Emotional Strength through Co- Curricular and

Extracurricular activities

Exclusive sports, art, literary and cultural activities like Public Speaking, Theatre club or Foreign Language classes, dance and music classes are organized on Saturdays for the holistic development of students.

An exclusive Student Activity Committee (SAC) is in place to coordinate cultural and literary activities. Participation of the students in the SAC activities helps them to acquire leadership qualities.

Step 6 :Development of social consciousness

The Institute conducts many cultural events throughout the year.

The institution conducts national festivals like Independence Day, Republic day, Engineer's day, Teacher's day, Gandhi Jayanthi etc. in a very meaningful way by giving all the inputs required.

Institution conducts parent felicitation every year to inculcate the culture as well as to create pride among them.

From admission to Convocation the culture of the institute is to treat any parent or student equally irrespective of their background with all dignity at all levels.

The students are given assignments and projects to identify the social problems in three – four layers

-Understanding of their family situation and appreciating the work of their parents

-Understanding problems in neighborhood.

-Understanding the regional and national problems and the trends in technology and social perceptions

-Attending real social problems through extension activities especially on Education, Health, Technical Skills, and other facilities like sanitation, cleanliness etc.

Step 7 :Success of the Effort

More than 77% of the students are getting placement in the campus itself.

The conduct of events on the campus and entrepreneurship activities also helped them to attain good levels in their professions later.

It is noteworthy to mention that some of the students, who are very low level in their communication and confidence at the time of admissions, became very successful anchor, orators, leaders etc., in their life, due to the training in the institute.

With all above efforts the institution is happy that it is able to create access to quality education to the rural students of economically backward communities. Incidentally, this is the main concern of the Government of India, and one of the core values of NAAC, and the prime value of the statutory bodies like UGC, AICTE.

VFSTR justifiably takes pride that it has awarded Engineering and Management degrees to more than 10,000 students since its inception, thus leading to the improvement of quality of life of that many families in this region.

File Description	Document
Any other relevant information	View Document
Appropriate web in the Institutional website	View Document

5. CONCLUSION

Additional Information :

Concluding Remarks :

Located in a rural and non-industrial area and being a self-financed institution, VFSTR is providing access to quality higher education for a large section of student community, who are mostly from economically backward classes. Providing Higher Education to the rural population is in line with the mission of the Government of India.

There is tremendous growth in all areas in the last five years. The Institution is maintaining consistent pass percentage of more than 90% and placements to the extent of 75-80%. This consistent performance and outcome is the reason for the trust and confidence reposed by the public in VFSTR.

In the last five years, research has received a big boost.Total number of publications reached 2054, and h-index improved to 27.

Further, the institution has a clear vision and well thought out strategic plan to reach the next level, and to be on par with the premier institutions of the country.

The goals for the *next five years* are :

- **To make 100% faculty with Ph.D qualification.**
- **Research output of two papers per faculty per year from the current one per year.**
- **Substantial raise in the funded research projects.**
- ***h*-index to be improved to 50.**
- **10-15% of students to "Earn While Learn".**

- **To impart entrepreneurial skills and development of more startups.**

VFSTR will achieve the above through Advanced Laboratories in the emerging areas, various Centers of Excellence, Student Project Complex, Expansion of Technology and Business Incubation Centers, Waste Management Processing Centers.

As part of the National Mission of building "Skill India", VFSTR continues to produce competent professionals with technical excellence, ethical values, and social consciousness for the development of the region and nation at large.

Jai Hind!

NAAC