



# VIGNAN'S

Foundation for Science, Technology & Research

(Deemed to be University)

-Estd. u/s 3 of UGC Act 1956



## Accademic and Administrative Audit (AAA) Committee Report

21-24 January, 2021





**ACADEMIC AND ADMINISTRATIVE AUDIT COMMITTEE**  
**VIGNAN'S FOUNDATION FOR SCIENCE, TECHNOLOGY AND RESEARCH**  
**DEEMED TO BE UNIVERSITY, VADLAMUDI, ANDHRA PRADESH**

Dear Dr. Prasad,

We, the members of the Academic and Administrative Audit Committee (AAAC) are pleased to present the report of the AAAC and the members expressed our sincere gratitude to you for the faith and trust reposed in us, in entrusting us with the task of evaluating and auditing the academic and administrative units of this reputed University. The members had an enriching and highly enlightening experience after interacting with your Chairman, faculty and administrative staff. The committee appreciate the academic standards, administrative reforms and the holistic approach for the development of the University. Also, the committee felt happy to see the existence of transparency, sincerity and wholehearted commitment of all concerned in the development of the University.

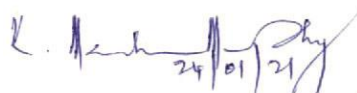
We, the committee members met the Chairman of the University and discussed at length about the objectives and vision of this University. AAAC members visited all the departments, had detailed presentations by the respective Heads of the Departments and interacted with the faculty and students including the research scholars.

We wish to thank the Director of Internal Quality Assurance Cell (IQAC) Dr.M.Ramakrishna and his entire team, and also the Registrar of the University, Dr.M.S.Raghunathan. Based on our observations and detailed evaluation, we submit to you this report with an assurance that the members will be available to offer any further clarifications and elaboration if necessary. Once again we express our heartfelt thanks to the Vice-Chancellor and his team for extending the kind hospitality during our visit and ensure a comfortable stay.

With kind regards



(Prof.H.D. Charan)



(Prof.K. Madhumurthy)



(Prof.K. Byrappa)  
Chairman, AAAC

## 2. EXECUTIVE SUMMARY

Quality Education should be the vision of every University and every educational institution. Academic Audit has been acclaimed as the effective instrument for enhancing Quality Education all over the world. Academic Audit provides measures of effectiveness to gauge academic programmes, research outputs, administrative functions, learning resources, evaluation that add up to Quality Education. The Vignan's Foundation for Science, Technology & Research (VFSTR) has undertaken self-assessment and exposed itself to external agency towards assessment. Further, AAA Committee adds that the University had external evaluation by NAAC during the year 2015 and received A Grade. In continuation of Quality Assurance, the University has put up the Internal Quality Assurance Cell in order to have continuous quality assessment. The University is going for accreditation in 2021. The University was assessed by the Academic, Administrative and Audit Committee (AAA Committee) in the year 2020-21. While doing so the committee used the extensive database generated by the Internal Quality Assurance Cell (IQAC).

It has been a great pleasure for the members of the committee to go round the lush green beautiful campus of the University. It is gratifying that in spite of several new buildings coming up or under various stages of construction, still the roads on the campus, the ecology of the campus are well maintained. Most of the buildings are well equipped with modern facilities extended both for teaching and research purposes. Further, the university has provided beautiful and well-furnished seminar halls and other power point presentation facilities to each department.


The University has a sound financial management and substantial flow of money for R&D and capital expenditure, which is highly commendable. Most of the buildings are well furnished with modern amenities including infrastructure for differently abled. An extensive data has been generated both by IQAC and PMEB. Almost all the departments have full-fledged faculty strength with majority having Ph.D degrees. The university is encouraging the other non-Ph.D faculty to register for Ph.D degrees. Encouragement for research is very well appreciated. The

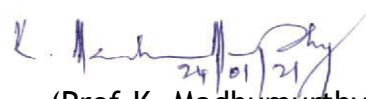


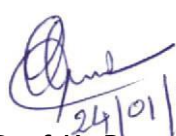
University can plan to invite experts from other organizations or universities or national laboratories for special lecture series on the frontier areas. The teaching methodology, learning processes, skill development and entrepreneurship are at the advanced level matching with some of the top technological institutions of the country. It is to be observed that the Course in English Proficiency and Communication Skills (PET & BEC Examinations) in collaboration with Cambridge University, and run by qualified professional trainers is very unique to the students from this rural region. Offering five different foreign languages to the students of technical education would get them better placement in MNCs. The online lectures, webinars on some specific topics at both national and international levels are well received by students and faculty.

The Academic and Administrative Audit Committee (AAAC) puts on record its great appreciation for this 12 years old Vignan University, which is emerging as a fast growing deemed to be University in India.

With kind regards

  
(Prof.H.D. Charan)

  
(Prof.K. Madhumurthy)

  
(Prof.K. Byrappa)  
Chairman, AAAC



### 3. INTRODUCTION AND PROFILE OF THE UNIVERSITY

The Vignan's Foundation for Science, Technology & Research (VFSTR) has taken a pioneering initiative towards the Academic and Administrative Audit in its true spirit. For this purpose, the Vice-Chancellor Prof.(Dr.)M.Y.S. Prasad constituted an Academic Administrative and Audit Committee with the following members:

- |   |   |             |
|---|---|-------------|
| 1) Prof. K. Byrappa<br>Former Vice-Chancellor<br>Mangalore University               | - | Chairman    |
| 2) Prof.H.D. Charan<br>Vice-Chancellor<br>Bikaner Technical University<br>Rajasthan | - | Member      |
| 3) Prof.K. Madhumurthy<br>Professor, Mechanical Engineering<br>NIT Warangal         | - | Member      |
| 4) Prof M. Ramakrishna<br>Dean IQAC<br>VFSTR  | - | Coordinator |

The terms of the reference of the committee consisted of comprehensive and detailed assessment of the present Academic, Administrative processes of the university. The committee visited all the departments, laboratories, central library, conference halls, seminar halls, administrative block, canteen biogas plant, sophisticated Infrastructure center, centers of excellence etc., of the University for three days from 21<sup>st</sup> to 24<sup>th</sup> January 2021.

During the visit, the committee had a detailed and elaborate presentations by the Vice-Chancellor, Deans of other Divisions, Heads of the Departments and the members of the faculty, as well as by the Associations of Teaching and supportive staff. The committee visited various departments and had interaction with the teaching faculty and students separately seeking information or any grievances, comments or suggestions for the betterment of the University. **The Committee had the benefit of going through the extensive documentation compiled by the Internal Quality Assurance Cell (IQAC) like detailed questionnaires on faculty and students along with the summary analysis of the data.** Based on the available data and the news gathered and assessment made

during the visits, the committee presents here the observations, conclusions, contained in this report. **The AAA Committee has submitted an interim report to the Vice-Chancellor, VFSTR on the last day of the visit in order to place it before the NAAC Peer Team.**

The VFSTR which was established in the year 2008 is the third oldest university in the state of Andhra Pradesh. The origin of the University can be traced back to the Vignan Engineering College which was established in the year 1997 at Vadlamudi under Lavu Educational Society. Within a short span of a decade the institution has been able to build a reputation for itself on par with institutions of more than 25 to 30 years of standing. Every year, the institution has been able to place 70% to 75% of its outgoing students in various MNCs and of the remaining 20% to 25% to pursue higher education both in India and abroad

The University is imparting its quality education in accordance with the changing times and in tune with the requirements of the society. The University was awarded A Grade by the NAAC in the year 2015 with CGPA of 3.02. Subsequently, the University Grants Commission (UGC) after a thorough review of functioning of VFSTR has extended the Deemed to be University status from 2013 to 2021. Besides, VFSTR has been accorded recognition as a Scientific and Research Organization (SIRO) by the Department of Scientific and Industrial Research, Ministry of Science and Technology, Govt. of India in September 2018. Subsequently, UGC after due inspection in January 2020 has accorded 12(B) status to VFSTR, by which the institute is eligible for grant or Financial assistance from Govt. of India. Further, University received National Board of Accreditation (NBA) for five UG programmes such as CSE, ECE, EEE, Mechanical and Biotechnology with a validity of 3 years. The National Institutional Ranking Framework (NIRF) of MHRD / Govt. of India has ranked VFSTR as top 100 in University category and 118 in Engineering Category. AICTE has also accorded extension of approval for the academic year 2021 to conduct programmes in Engineering, Technology, Management and Pharmacy in both UG and PG.

The University has five programmes - Engineering, Science, Humanities, Business Management and Pharmacy with 12 departments in total. Choice Based Credit System (CBCS) with continuous assessment since 2015-2016 academic year is in place at the university. It has also introduced semester system in all the U.G & P.G. Courses.

The initiatives and the processes followed by the VFSTR as documented were presented before the AAA Committee for review and to reflect in the context of NAAC accreditation. A brief report with the observations and recommendations of the AAA Committee is submitted herewith.



## **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 University.**

**Response:**

**Curriculum Development:**

A well-constituted Course Designing and Monitoring Committees (CDMC) are in place at departmental level with the HoD as Chairperson and three other members.

- Two major revisions were undertaken during last five years, by collecting feedback of different stakeholders.
- The curriculum revision is duly approved by BoS, Academic Council and BoM, consisting of senior academicians and successful industry personnel.
- BoS members of all programs put together is 161(78 from academia & 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 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 2500 new courses in last five years to keep abreast of emerging national and global needs. Also, the curriculum is enriched with 408 value added courses, most of them taught by industry experts, on industry relevant topics. Technical seminars, workshops, and conferences are organized to explore emerging trends and career opportunities at national/global level.

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

### **Relevance to Local and Regional Needs:**

Following programs cater to local needs:

1. Food Technology and Agricultural Engineering: Being an agricultural area, the region has surplus production of food grains and vegetables. The two programs are aimed at supporting the neighbouring farming community, through technology transfer for soil management, food processing, storage etc.
2. Textile Technology: Cotton being a staple crop of the region, with more than 100 spinning mills in operation here, provides immense potential for employment.
3. Petroleum Engineering: Being a coastal area with ample petroleum reserves, especially in the KG basin, students can enjoy rich 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 aim at clear Course Outcomes.
- POs like Engineering knowledge, problem analysis, design of solution, modern tools 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.

<b>File Description</b>	<b>Document</b>
Any Additional information	<b>View document</b>
Link for Additional information	<b>View document</b>



**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
Any additional information	View document

**1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the University**

**Response:** 100%

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

**Response:** 6088

2019-20	2018-19	2017-18	2016-17	2015-16
1393	1356	1288	1117	934

File Description	Document
Any additional information	View document
Programme / Curriculum/ Syllabus of the courses	View document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View document
MoU's with relevant organizations for these courses, if any	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:** 41.71%

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

**Response:** 2539

1.2.1.2 : Number of courses offered by the institution across all Programmes during the last five years

**Response:** 6088

File Description	Document
Minutes of relevant Academic Council/BOS meeting	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
Any additional information	View Document
Minutes of relevant Academic Council/BOS meetings	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 in tune with its Vision, strives to create dynamic and knowledgeable professionals who are socially responsible and emotionally balanced. For this, Humanities courses were introduced for engineering students about 7-8 years back, which is also in line with the New Education Policy of 2020. These courses are aimed at instilling human values, gender sensitivity etc., among students.

##### **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. The university has a separate policy on gender equality and for preventing sexual harassment.

##### **Impact:**

- About 45% of students admitted into the institute are girls every year.
- No complaints from students or faculty on gender discrimination since inception of institute.
- Not even 5 - 6 cases of sexual harassment happened.

##### **Environment and sustainability:**

- Course on Environmental Science made mandatory for first year students to train them on conscientious use of natural resources like water and power.
- Course on Environmental Engineering compulsory for Civil Engineering students to train on waste water management, solid waste disposal, sewage treatment techniques, air pollution control etc.
- Around 80% students participate in green initiatives like tree plantation and mandatory campus maintenance, besides volunteering to propagate cleanliness in neighbouring villages through “SWACH Vignan” programs.
- Special programs and invited talks, at least twice every semester serve to heighten student awareness on judicious management of natural resources and environment conservation.
- A policy on environment sustainability is available.

**Impact:**

Students 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 values stressed right from bridge course and through guest lectures at regular intervals.
- Students provided understanding on fundamental human values and ethics through course on “Human Values and Professional Ethics.”
- Mandatory plagiarism checks on all articles/thesis published by faculty/research scholars.
- Week-long Gandhi Jayanthi celebrations observed to create awareness on values of honesty, integrity. Nearly 80% students attend these events and 20 - 25% participate in competitions like essay writing, debate etc.
- On-campus celebration of Onam, Dussera, Deepavali etc., creates awareness on cultural values among students.
- National festivals like Independence Day, Republic day celebrated by inviting freedom fighters from the region, to highlight sacrifices made and to instil patriotism among students.
- Republic day competitions conducted for three days to enable students to learn about constitutional values.
- Value of social service and respect for elders inculcated through visiting old age homes and orphanages.

**Impact:**

- The institution enjoys healthy interaction among all its members and is functioning harmoniously without any bureaucratic hurdles.
- Students remain responsive and involved during campus events.
- Research scholars adhere to ethics while experimentation or writing research articles
- VFSTR has no issues of plagiarism so far.

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



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

**Response :408**

1.3.2.1: How many new value-added courses are added within the last 5 years

**Response: 324**

File Description	Document
Any additional information	View document
Brochure or any other document relating to value added courses	View document

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

Response: 85.21%

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	6277	5996	5596	4135	3608

File Description	Document
Any additional information	View document

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

**Response: 96.59%**

1.3.4.1: Number of students undertaking field project or research projects or internships

**Response: 6595**

	<b>File Description</b>	<b>Document</b>	
	Any 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

- A. All 4 of the above
- B. Any 3 of the above
- C. Any 2 of the above
- D. Any 1 of the above
- E. None of the above

**Response:** All 4 of the above

<b>File Description</b>	<b>Document</b>
URL for stakeholder feedback report	View document
Action taken report of the University on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	View document
Any additional information	View document

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

- A. Feedback collected, analysed and action taken and feedback available on website
- B. Feedback collected, analysed and action has been taken
- C. Feedback collected and analysed
- D. Feedback collected
- E. Feedback not collected

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

File Description	Document
Any additional information	View Document
URL for feedback report	View Document

**AAAC Observations:**

The University has a well-established mechanism for revising the syllabus periodically every two years and three years for the PG and UG courses respectively. The unique feature of the curricular aspects is the constitution of Board of Studies which has over 50% from Industries and corporates. Cambridge certificate courses (PET and BEC) are in great demand for English Proficiency. The curriculum is obtained relevant to the National and Global needs and also based on the stakeholders needs. The value added courses and open electives have empowered the students with better job opportunities. The university facilitates holistic development of the students offering entrepreneurship skill proficiency, communication, etc. through extra-curricular activities including extension activities with societal impact. Students are happy with the quality of the curriculum, teaching and learning processes. However, the introduction of industrial internship embedded in the curriculum is most preferred. Besides, students need more cross borders learning through open electives and other value added courses, which offer better job opportunities. The University may look in to the special subjects to be taught by the extern experts since some of the departments do not have experience faculty to teach these special subjects.

## Criterion II – Teaching-Learning and Evaluation

### 2.1 Student Enrolment 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

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

File Description	Document
Demand Ratio (Average of Last five years)	<a href="#">View Document</a>

#### 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:**57.55

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	861	854	682	638	521

File Description	Document
Average percentage of seats filled against seats reserved	<a href="#">View Document</a>



## 2.2 Catering to Student Diversity

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

#### Response:

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

- a. Ways of interaction in class rooms
- b. Methods of formative assessment and summative assessment to evaluate learning outcomes through internal assignments, mid exams, mini projects etc.
- c. Continuous laboratory assessment(CLA)
- d. Monitoring regularity of attendance and time spent on academics by students
- e. Methods of student counselling
- f. Assessing student performance in team work
- g. Seminars
- h. Project works
- i. Participation in campus events/activities

#### 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 IAS, GATE, 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 debate, quiz competitions etc.,
- Coaching for civil services.
- Opportunity of international student exchange program with financial aid. (During last five years, 38 students have completed their internships in prestigious institutions like National Technical University of Singapore, ECN, France, Soongsil University, South Korea, and Koreatech University, South Korea.)
- Ample avenues for acquiring additional skills through Skill Development Centre.
- Opportunities with guidance for pursuing interdisciplinary projects.

- Scope for participating in ongoing research projects (both in-house and funded) of the department
- Seed money 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 for them are:

- Extra classes in identified courses.
- Support of faculty counsellors to cope with any academic, administrative or emotional issue.
- Help from advanced learners, who act as mentors for helping them with academic backlogs
- Digital content to aid self study and easy preparation.
- A separate summer semester to repeat courses and clear backlogs.
- Separate supplementary examinations are offered to clear backlogs.
- Guidance and professional counselling by campus psychologist to overcome serious psychological, behavioural, attitudinal issues.

### **Outcome**

- *90% of students complete their courses within the stipulated time*
- *18% of students completed extra courses like NPTEL, Coursera etc.*
- *More than 600 medals bagged by students in last 5 years.*
- *Leadership training on campus has enabled students to enjoy fast-track careers in corporate world.*
- *More than 200 students preparing for civil services*
- *Academic mentorship is thus enabling continuous improvement in pass percentage from 1<sup>st</sup> to 8<sup>th</sup> semester.*

File Description	Document
Any additional Information	<a href="#">View Document</a>

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

Response: 12.71

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

## 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:

Curriculum for various programs is designed to promote application skills and enable project based learning. Student-centric teaching methods are adopted to provide scope for experiential and participative learning besides problem-solving. The following measures are in place to ensure learning outcomes:

#### Experiential learning

- Practical sessions for skill development integrated with majority of theory courses.
- Eight Skill Development Labs set up and 6940 students received training.
- Mandatory minor projects for majority of courses to promote experiential learning, which promotes entrepreneurial skills and capabilities in students.
- Semester-long internship in final year enables students to work with reputed industries/ research institutes.
- Project based learning enables learning by doing. Around 23 credits allotted for projects in R19 curriculum, which includes –intradepartmental/ interdisciplinary projects, and societal projects
- Annual project expo “Srujanankura” organised to showcase students’ technical capabilities 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.
- Independent surveys on case studies conducted by management graduates.
- Management students spend 2 to 3 weeks as field interns to study marketing.
- Opportunities for technical seminars in course work.

### **Participative learning**

Participative and collaborative learning is promoted through methods such as think-pair-share, connecting the dots, buzz sessions, group discussions, role plays, assignments, and project works.

### **Blended Teaching Approach**

- By leveraging technology, teachers adopt a mix of traditional methods like chalk and board, use of ICT like PPTs and online resources, besides use of multi-media and pre-recorded content with use of smart boards.
- ICT tools like Google forms, Mentimeter, Slido and Kahoot are also used for quick formative assessments and instant feedback on the concept 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 8 hours/week training from II year onwards for coding competitions like for Hackathons.

### **Impact:**

- 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 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
Any additional Information	<a href="#">View Document</a>

### 2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning processes

#### Response:

#### ICT Facilities Available:

VFSTR encourages and hones the skills of faculty to make meaningful use of ICT enabled tools including online resources for effective teaching and learning process. Being a technical institution, the faculty 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, Adobe premiere.
- 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 communication technologies such as SMS, e-mail, University Portal for communication with students and parents. Devices such as smart phones, tablets, and laptops are used for this.
- Faculty integrate multimedia usage (audio, video, animation software) to enhance their digital presentations and help students assimilate easily even the abstract concepts taught. Faculty use online digital resources like MOOCS, (COURSERA, and NPTEL etc.,) to enable

students 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 software.
- 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 campus classes is going 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 slow learners 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 even slow learners.



File Description	Document	
List of teachers(using ICT for teaching)	<a href="#">View Document</a>	
Any additional Information	<a href="#">View Document</a>	
Provide link for webpage describing the “LMS / Academic management system”	<a href="http://vumoodle.in/">http://vumoodle.in/</a>	

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

Response:14.88

File Description	Document
Year wise list of number of students enrolled, full time teachers and mentor/mentee ratio	<a href="#">View Document</a>

## 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	<a href="#">View Document</a>
List of the faculty members authenticated by the Head of HEI	<a href="#">View Document</a>

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

Response: 29.88

2.4.2.1: Number 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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	218	169	127	119	93

File Description	Document
List of number of full time teachers with Ph.D and number of full time teachers for 5 years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**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)**

2.4.3.1: Total experience of full-time teachers

**Response: 5**

File Description	Document
List of Teachers including their PAN, designation, dept and experience details	<a href="#">View Document</a>

**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:**14.91

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	20	23	11	10	7

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
e-copies of award letters (scanned or soft copy)	<a href="#">View Document</a>

**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 during the last five years**

**Response:** 9.8

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	7	9	10	11	12

File Description	Document
List of programmes and date of last semester and date of declaration of results	<a href="#">View Document</a>

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

**Response:**1.55

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	157	340	240	126	72

File Description	Document
Number of complaints and total number of students appeared year wise	<a href="#">View Document</a>

**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 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 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 developed 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., is in place.
- Announcement of result and downloading of marks sheet are automated.
- There is a separate portal for addressing student grievances.

**Outcome:**

Through these IT enabled services, the institution, even during the Covid-19 pandemic has successfully conducted end semester online examinations 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 in joining their jobs and the remaining batches to promote to next semester.

**Reforms in examination procedures/processes:**

- The CGPA limit to award 'first class with distinction' is raised from 7.5 to 8.0
- All mid examinations are considered for assessment.
- Auditing of the continuous evaluation process of laboratory is initiated.
- Revision of question paper pattern is based on the program and course outcomes following the Blooms taxonomy, and in line with the course and program outcomes
- Project evaluation is done by a panel with internal + industry experts.
- All courses have clearly defined COs in correlation with POs. Evaluation methods are developed to judge the attainments of Objectives.
- Audit of laboratories by experts for proper functioning/calibration of equipment
- Revision and design of question paper based on Blooms Taxonomy level, programme and course outcomes.
- Conduct of examinations with CCTV surveillance.
- Evaluation audit by external experts.
- End semester examination results are declared within 10 days of completion of exams.
- Access of evaluated answer scripts to students for verification.
- Some question papers like C-programming are set by the industry experts.
- Moving 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 are conducted by involving industry experts.
- Time taken for announcement of result is reduced to 10 days.
- Total number of scripts applied for revaluation is around 0.55% of the total number.
- The number of malpractices have come down significantly to just 0.05%.

File Description	Document
Year wise number of applications, students and revaluation cases	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

- A. 100% automation of entire division & implementation of Examination Management System (EMS)**
- B. Only student registration, Hall ticket issue & Result Processing**
- C. Only student registration and result processing**
- D. Only result processing**
- E. Only manual methodology**

**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	<a href="#">View Document</a>
Current manual of examination automation system	<a href="#">View Document</a>
Annual reports of examination including the present status of automation	<a href="#">View Document</a>



## 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, and the graduate attributes. They are uploaded on the institution's website (<https://vignan.ac.in>). They are essential in the realization of the institution's vision, mission, and strategic management of its resources aimed at enabling students in attainment of graduate attributes and developing into holistic professionals.

### Defining the Outcomes

In defining learning outcomes, following aspects are addressed:

- i. All course outcomes (COs) are reckonable and stated using action verbs (Bloom's taxonomy).
- ii. COs are declarative statements, defining the knowledge, skills and competencies students are to receive on completion of their program.
- iii. 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.
- iv. COs are formulated to make students proficient in all areas of learning (cognitive, psychomotor and affective domains). Evaluation on attainment, takes place at department/program level as well as at the university level.

### Assessment Process

- v. Assessment method/tools are decided, taking into account different parameters/learning outcomes to be measured.

Courses	Assessment Tool	Graduate Attributes
Theory course	<b>Internal:</b> Weekly Assessment Assignment, Mid Examination <b>External:</b> Semester End Examination	<ul style="list-style-type: none"><li>▪ Engineering knowledge,</li><li>▪ Problem analysis,</li><li>▪ Design/development of solutions</li></ul>
Lab course	<b>Internal:</b> Continuous Evaluation Internal Examination- Practical	<ul style="list-style-type: none"><li>▪ Engineering knowledge,</li><li>▪ Problem analysis,</li></ul>

	<b>External:</b> Semester End Examination - Practical	<ul style="list-style-type: none"> <li>▪ Design/development of solutions,</li> <li>▪ Conduct investigations of complex problems,</li> <li>▪ Modern tool usage,</li> <li>▪ Ethics</li> <li>▪ Individual and team work,</li> </ul>
Mini project/ Project/Internship	<b>Internal:</b> Internal reviews <b>External:</b> Viva-Voce, Demonstration	<ul style="list-style-type: none"> <li>▪ Problem analysis,</li> <li>▪ Design/development of solutions,</li> <li>▪ Conduct investigations of complex problems,</li> <li>▪ Modern tool usage,</li> <li>▪ The engineer and society,</li> <li>▪ Environment and sustainability,</li> <li>▪ Ethics,</li> <li>▪ Individual and team work,</li> <li>▪ Communication,</li> <li>▪ Project management and finance</li> </ul>
Seminar course	<b>Internal:</b> Internal review	<ul style="list-style-type: none"> <li>▪ Individual and team work,</li> <li>▪ Communication,</li> <li>▪ Life-long learning</li> </ul>
Life Skill Activities	<b>Internal:</b> Internal analysis <b>External:</b> External analysis	<ul style="list-style-type: none"> <li>▪ The engineer and society,</li> <li>▪ Environment and sustainability,</li> <li>▪ Ethics,</li> <li>▪ Individual and team work,</li> <li>▪ Communication,</li> <li>▪ Life-long learning</li> </ul>

**Dissemination**

- vi. 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.
- vii. Learning outcomes are publicized through
  - a. Publications - Syllabus books, Calendar, Records.
  - b. Display - Class rooms, Laboratories, Corridors, Website.
  - c. 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
COs for all courses (exemplars from Glossary)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**2.6.2 Attainment of Programme- outcomes, Programme specific outcomes and course outcomes are evaluated by the institution****Response:**

Assessment of COs, POs and PSOs is a core academic activity to assess the learning abilities of students. Programme outcome assessment is a continuous process that guides teaching, learning and evaluation, also serving as a mechanism to monitor effectiveness of the learning environment based on evidence that determine whether students have realized course outcomes and objectives.

A well defined process for attainment of COs & POs in the organization is adopted in last seven years.

### **Defining the Attainment goals**

- Curriculum development includes description of Course Outcomes and Mapping of COs with POs.
- Course coordinators are given free hand in designing and mapping of COs with POs and assessment tools with rubrics is defined by course coordinator with approval of departmental committees.
- Program Curriculum along with COs & POs is approved in BoS & Academic Council (AC).

### **Attainment Evaluation Process**

- During execution, any gaps identified, are addressed through action initiated by the departmental level committee with support of BoS & AC.
- The Departmental-Level Committees set targets for both COs & POs prior to commencement of each semester bearing in view the earlier batch attainments and pass percentage of current batch.
- PO attainment is done through direct and indirect assessments, with 80%, and 20% weightage respectively.
- Direct assessment of POs is defined as cumulative assessment of COs.
- The computation process followed for assessing COs & POs attainment is given in annexure 1 & 2 respectively.
- Year on year, there is a continuous improvement in the attainment of POs/PSOs
- There is a scope for continuous improvement in teaching and learning which facilitates opportunities to improve practices in the following.

### **Practices to improve the PO and PSO attainment**

The following activities are adopted to improve the attainment of PO and PSOs:

**Academic activities** enforced to improve the attainment of PO and PSOs from 2013 to 2015 Batches.

Besides teaching and learning practices, the following are adopted.

- Introduction of Periodic Assignments / Tests in CIE.
- Introduction of Continuous Laboratory Assessment in Laboratory Courses.
- Learning resources through ICT
- Encouraging and incentivizing, besides motivating self-study like NPTEL Coursera etc.,

- Introduction of some value added courses

**Professional activities** enforced to improve the attainment of POs and PSOs from 2013 Batch to 2015 Batch are:

- 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.
- SAC & E-Cell activities
- Effective counselling and mentoring

**Improvements of the PO and PSO** of last three batches of B.Tech ECE program is as follows

There is an improvement in the range of attainments over the last three batches, from 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
Any additional information	<a href="#">View Document</a>

### 2.6.3 Pass percentage of students

**Response:** 92.80

2.6.3.1: Total number of final year students who passed the university examination

**Response:**1741

2.6.3.2: Total number of final year students who appeared for the examination

**Response:**1876

File Description	Document
List of Programmes and number of students passed and appeared in the final year examination	<a href="#">View Document</a>
Link for the annual report	<a href="#">View Document</a>

## 2.7 Student Satisfaction Survey

### 2.7.1 Online student satisfaction survey regarding teaching learning process.

( Online survey to be conducted)

Response: 4

File Description	Document
Database of all currently enrolled students	<a href="#">View Document</a>

### AAA Committee's Observations:

Quality of faculty is good with more than 40% Ph.D degree holders. About 1 : 18 = teacher : student ratio is maintained in most of the departments. The faculty development program is well appreciated by all the faculty members. In some of the departments there is a good geographic diversity of the faculty. Some of the faculty members are having overseas exposure working in several international universities in Singapore, South Korea, Japan, Germany and so on. The committee appreciates the participative learning and problem solving methodologies every department has facilities like well-equipped seminar halls class rooms for interactive sessions, well-equipped laboratories for students practicals. The evaluation process and reforms are exemplary. The VFSTR has a mechanism to offer bridge courses, special programs for slow learners and so on. Very interesting aspect is the credit for the physical fitness. Teachers are encouraged to update their knowledge through MOOCS and SWAYAM courses. The VFSTR has fixed the admission criteria high with a minimum of 70% in the qualifying exam. This has help the VFSTR to produce quality graduates. The pass percentage varies from 84% – 96.5% which is a very good rate.



## Criterion III – Research, Innovations and Extension

### 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:** Yes

#### **Research Policy**

VFSTR strives to extend a supportive and nurturing research environment through three enabling factors, viz. (i) Faculty members with research inclination, (ii) Infrastructure to facilitate and support research, and (iii) Performance based incentives. Faculty members with sound research background and good research indices like impact factor, *h*-index, etc. are more likely to be self-driven for research. Provided with good infrastructure and space to work, they can contribute to enhance the IP of the University. Such high performing faculty on research front, need to be encouraged through appropriate recognition of their contributions.

VFSTR research policy, exemplifies the above mentioned and seeks to foster a culture of exchange among academia, research, and industry.

#### **Objectives of the Policy:**

- To emerge as a leading national institution in research.
- To inculcate scientific temper among faculty and students who possess research aptitude and zeal.
- To strengthen research culture on campus, through effective coordination and management of research activities
- Upgrade quality and promote research visibility for attracting financial and human resources.
- Promote industry-academia collaboration and consultancy activities.

#### **The Policy:**

VFSTR Research Policy encompasses the following:

- **Research Quality**
  - Systematic research involves a process of enquiry that explores pertinent questions on all dimensions of research problem undertaken, to arrive at a reliable solution, thus creating a new knowledge base.

- **Human Resources**
  - VFSTR has several faculty members with good research credentials measured on internationally accepted matrices, e.g., impact factor.
  - There has been a good improvement in the number of full time PhD scholars that has improved the quality of research significantly.
- **Institutional Framework**
  - Emphasis on research along with teaching.
  - Promotion of inter, multi and trans-disciplinary research culture.
  - Sabbatical leave for mid-career faculty for pursuing research /post-doc.
  - About 10% faculty dedicated exclusively to research.
- **Infrastructure and Funding**
  - Centres of Excellence with state of art facilities and equipment
  - Handsome research stipend provided to full-time scholars.
  - Expert guidance during drafting of project proposals to garner research funding from government agencies.
  - Seed grants to initiate proof of concept through research articles for securing bigger grants.
  - Performance based research incentives help promote research atmosphere.
  - Grants to attend seminars/workshops/conferences.
  - Grant support on patent with an incentive.
  - Special incentives for achieving state/national/international awards and research grants.
  - Technology Business incubators to promote start-ups.
- **Industry – Academy Relationship**
  - Promoting consultancy from industries for developing technologies and analysis.
  - Collaborative research with industries on demand areas
  - Industry training for faculty to update skills and identify problems.
  - Incorporating experts from Industry in University Research Board.
- **Research and Social Connect**
  - Sensitizing relevant communities on technologies.
  - Focus on local need-based and challenging research.
  - Organizing national/international seminars/workshops/conferences at regular intervals
- **Research Misconduct**
  - Plagiarism, fabrication, and falsification of any part of research – whether procedure, proposal, data collection, reporting or review of data, are unacceptable. University takes stringent action on any instance of alleged misconduct since it compromises the very basic principles of research.

File Description	Documents
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	<a href="#">View Documents</a>
URL of Policy document on promotion of research uploaded on website	<a href="#">View Documents</a>

**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)

Year	2019-20	2018-19	2017-18	2016-17	2015-16
INR in lakhs	223.6	216.6	55	16	10

File Description	Documents
Minutes of the relevant bodies of the University	<a href="#">View Documents</a>
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	<a href="#">View Documents</a>
List of teachers receiving grant and details of grant received (Data Template)	<a href="#">View Documents</a>

**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: 10.04**

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number of teachers	10	7	9	16	6

File Description	Documents
e-copies of the award letters of the teachers	<a href="#">View Documents</a>
List of teachers and their international fellowship details (Data Templates)	<a href="#">View Documents</a>

**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

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

File Description	Documents
List of research fellows and their fellowship details (Data Template)	<a href="#">View Documents</a>

**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**

**Options:**

**A. Any 4 or more of the above**

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

E. None of the above

**Response:** Any four facilities exist

File Description	Documents
Paste link of videos and geotagged photographs	<a href="#">View Documents</a>
Upload the list of facilities provided by the university and their year of establishment	

**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:** 16.66

File Description	Documents
e-version of departmental recognition award letters	<a href="#">View Documents</a>
List of departments and award details (Data Template)	<a href="#">View Documents</a>

**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: 306.59**

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)

Year	2019-20	2018-19	2017-18	2016-17	2015-16
INR in Lakhs	89.25	67.23	56.64	51.00	42.45

File Description	Documents
e-copies of the grant award letters for research projects sponsored by non-government	<a href="#">View Documents</a>
List of project and grant details (Data Template as of 3.1.6)	<a href="#">View Documents</a>

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

**Response: 538.97**

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
INR in Lakhs	114.17	126.26	81.74	90.82	125.98

File Description	Documents
e-copies of the grant award letters for research projects sponsored by government	<a href="#">View Documents</a>
List of project and grant details (Data Template as of 3.1.6)	<a href="#">View Documents</a>

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

**Response: 3.22**

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

**Response: 1538**

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3.2.3.2 : Number of full time teachers worked in the institution during the last 5 years

**Response: 476**

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	537	501	465	453	424

File Description	Documents
List of research projects and funding details (Data Template as of 3.1.6)	<a href="#">View Documents</a>
Supporting document from Funding Agency	<a href="#">View Documents</a>
Paste Link for the funding agency website	<a href="#">View Documents</a>

### 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***

Describe available incubation centre and evidence of its usage (activity) within a maximum of 500 words.

##### **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 lifecycle - 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 the National Research Development Corporation (NRDC), Govt., of India in 2020.

##### **Vignan's Technology Business Incubator (VTBI):**

The VTBI was established in 2017 with a 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 104 Sq.m of the area. The following support is provided for startup activities by Vignan's Student/ Faculty:

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

Student entrepreneurship cell (E-Cell) consists of interested and registered students who work on entrepreneurship activity under the guidance of Director IES. Roughly 40 to 50 students work in the E-Cell. A Guidance and Monitoring Committee for IES with senior Deans and HoD's as members assists Director, IES in all the above activities.

### **Activities**

127 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:

- Conducted a 25-day entrepreneurship development program through the DST-NIMAT project, 09<sup>th</sup> Dec 2019 to 03<sup>rd</sup> Jan2020.
- Entrepreneurship Boot Camp and Idea workshop in Association with TiE GRAD, Hyderabad on 13<sup>th</sup> Dec 2019.
- Organized a seminar on Intellectual property rights by Dr. B.K. Sahool, Regional Manager NRDC, Govt. of India in VFSTR.

### **Achievements/Impacts**

- One former faculty and two former students of VFSTR started in 2019, a startup company 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.

- 32 of the patents were filed and published in different areas, and 4 patents are granted, including two International Patents (USA).

Further details are given in Annexure.

Link: <https://www.vtbi.org/>

File Description	Documents
Upload any additional information	<a href="#">View Documents</a>

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

**Response: 127**

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	41	23	25	22	16

File Description	Documents
List of workshops/seminars during last 5 years (Data Template)	<a href="#">View Documents</a>
Report of the event	<a href="#">View Documents</a>

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

**Response: 369**

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	120	103	80	49	16

File Description	Documents
List of innovation and award details (Data Template)	<a href="#">View Documents</a>
e- copies of award letters	<a href="#">View Documents</a>

**3.4 Research Publications and Awards**

***The institution ensures implementation of its stated Code of Ethics for research***

3.4.1.1 The institution has a stated Code of Ethics for research and the implementation of which is ensured through the following:

1. Inclusion of research ethics in the research methodology course work
2. Presence of institutional Ethics committees (Animal, chemical,bio-ethics etc)
3. Plagiarism check
4. Research Advisory Committee

**Options:**

- A. All of the above
- B. Any 3 of the above
- C. Any 2 of the above
- D. Any 1 of the above
- E. None of the above

**Response: A**

File Description	Documents
Any additional information	<a href="#">View Documents</a>

**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

**Options:**

- A. All of the above      B. Any 3 of the above      C. Any 2 of the above      D. Any 1 of the above  
E. None of the above

**Response: A**

File Description	Documents
List of Awardees and Award details (Data Template as of 2.4.4)	<a href="#">View Documents</a>
e- copies of the letters of awards	<a href="#">View Documents</a>

**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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	18	8	2	0	4

File Description	Documents
List of patents and year it was awarded (Data Template)	<a href="#">View Documents</a>

**3.4.4 Number of Ph.D's awarded per teacher during the last five years****Response:** 0.62

3.4.4.1: How many Ph.D's are awarded within last 5 years

**Response:** 68

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

**Response:** 110

File Description	Documents
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc (Data Template)	<a href="#">View Documents</a>
URL to the research page on HEI web site	<a href="#">View Documents</a>

**3.4.5 Number of research papers per teacher in the Journals notified on UGC website during the last five years****Response:** 2124(4.45)

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	785	500	409	239	191

File Description	Documents
List of research papers by title, author, department, name and year of publication (Data Template)	<a href="#">View Documents</a>

**3.4.6 Number of books and chapters in edited volumes published per teacher during the last five years**

**Response: 1216 (2.55)**

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 the last five years

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	347	272	256	244	97

File Description	Documents
List books and chapters in edited volumes / books published (Data Template)	<a href="#">View Documents</a>

**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**

*Options:*

- A. Any 5 or all of the above      B. Any 4 of the above      C. Any 3 of the above  
D. Any 2 of the above      E. None of the above

**Response: E [Only LMS available out of 6 factirs]**

File Description	Documents
Details of e-content developed by teachers for e-PG-Pathshala, CEC (UG) (Data Template)	<a href="#">View Documents</a>
Give links or upload document of e-content developed	<a href="#">View Documents</a>

**3.4.8 Bibliometrics of the publications during the last five years based on average Citation Index in Scopus/ Web of Science/PubMed**

**Response:** 2.27

File Description	Documents
Bibliometrics of the publications during the last five years	<a href="#">View Documents</a>

**3.4.9 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science – h-Index of the University**

**Response:** 24

File Description	Documents
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	<a href="#">View Documents</a>

**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:** Yes

VFSTR extends its support and works with industry through offering consultancy services on specific problems. Consultancy is offered both by faculty and administrative professionals. The jobs are undertaken either by an employee or by a group of academics with assistance from some technical staff, whatever may be the commitment of Institute facilities/ equipment to be used. Consulting services are of three types: a) Institutional Consultancy; b) Research Consultancy; and c) Technical Services. The aim is to associate with

industry, both the public and private sectors, and provide advice for improvement of their services/products. VFSTR, thus endorses individual and institutional consultancy.

VFSTR usually accepts proposals to fund basic or exploratory work, or to continue or build project style testing. Such projects shall entail providing, either in full or in part, in-kind assistance, e.g. equipment, supplementary training, through financial inputs. Efforts are undertaken by VFSTR to build ongoing or new R&D projects/capabilities/facilities. For Services Industry, VFSTR provides research, technological or other professional advice /assistance based on the availability of institution's expertise. Sometimes, professional help being rendered may need only knowledge inputs and very limited laboratory facilities to fulfill the consultancy objectives.

The client could contact Dean R&D for consultancy services, or directly the faculty member concerned. In case of the former, the office of Dean R&D refers to appropriate department head.

The right to license intellectual property rests with VFSTR for any consultancy research operations, including individual/collaborative works. Licensing of any intellectual property for commercial applications is jointly executed. VFSTR has proper systems for monitoring and evaluating progress on work undertaken. The faculty responsible must complete the work before the deadline. With improved infrastructure and recruitment of well qualified, and versatile faculty from IITs, NITs and other national institutions, VFSTR has built a pool of resources for undertaking consultancy works. Additional training was offered for upgrading faculty competencies for consultancy.

Currently VFSTR has adequate laboratories and testing equipment to support various organizations in the region. Though a budding institute, through persistent follow-up with different companies/organization, VFSTR was successful in completing 341 projects (2015-20) worth Rs.445.36 lakhs. Sharing of revenue with faculty ranges from 60-70% of the fee or net surplus (remaining after accounting for both direct and indirect service expenditure), whichever is lower with the employees.

Ex: The department of Civil Engineering executed consultancy for the client "Sarva Shiksha Abhiyan, Government of Andhra Pradesh", titled "Design of a concrete mix for M



20 grade concrete using 20 mm and 10 mm coarse aggregates. The ingredients tested were water, fine aggregate (sand), coarse aggregate, cement, chemicals, reinforcement, and soil. Mix proportion was designed according to IS: 456-2000 & IS: 10262-2019 and the cubes (15 cm x 15 cm x 15 cm) were cast to determine the compressive strength at the 7-day phase and 28-day phase of curing and testing as per IS 516: 1959.

File Description	Documents
soft copy of the Consultancy Policy	<a href="#">View Documents</a>
URL of the consultancy policy document	<a href="#">View Documents</a>
minutes of the Governing Council/ Syndicate/Board of Management related to consultancy policy	<a href="#">View Documents</a>

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

**Response: 445.35**

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
INR in lakhs	130.65	116.42	106.76	65.88	25.64

File Description	Documents
List of consultants and revenue generated by them (Data Template)	<a href="#">View Documents</a>
Audited statements of accounts indicating the revenue generated through consultancy	<a href="#">View Documents</a>

### 3.6 Extension Activities

#### ***3.6.1 Extension activities in the neighborhood community in terms of impact and sensitizing students to social issues and holistic development during the last five years***

##### **Response:**

VFSTR through its NSS/NCC/ Vignan Village Programs (VVP) engages with the local community to extend knowledge/ technology through skill development programs, awareness on non-renewable energy, solid and liquid waste management, programs for women on nutrition/health hygiene, etc.

##### **Institute conducted:**

1. 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%.
2. Enhancing Rural Employability
  - Three batches of unemployed rural graduates trained on the use of ICT, pedagogical and interview skills with 100% placements.
3. Special training to 120 rural women on manufacturing low-cost hygienic sanitary napkins.
  - 120 women made self-sustainable with 700 unit/day output.
4. Computer Technology for Rural Students.
  - 72 students and 12 faculty trained rural students on computer education in VFSTR adopted villages.
5. Value-added (Bio-fortified) Tomatoes with iron.
  - A DST project helped uneducated women to grow iron-rich tomatoes to overcome anemia.
6. 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.
7. Coconut Climbing Mechanism
  - Funded by VSFTTR, a multidisciplinary team of ECE, Mechanical, EEE and CSE students designed the coconut tree climbing robot.
8. 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)

9. 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, Swatchtahi 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 AICTE from CM of AP in 2017.
- Three interns won Rs.60000 cash reward by MHRD in 2018.
- “Seva Bharathi Award” from NGO in 2018.
- “Chatrapathi award” by Shivaji Foundation in 2019.
- NGO award continuously from 2016 to 2020.

File Description	Documents
Paste link for additional information	<a href="#">View Documents</a>

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

**Response: 56**

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

File Description	Documents
Number of awards for extension activities in last 5 year (Data Template)	<a href="#">View Documents</a>
e-copy of the award letters	<a href="#">View Documents</a>

**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 organized in collaboration with industry, community and NGOs)**

**Response: 254**

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

File Description	Documents
Number of extension and outreach Programmes conducted with industry, community etc for the last five years (Data Template)	<a href="#">View Documents</a>
Reports of the event organized	<a href="#">View Documents</a>

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

**Response:** 91.11

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	6391	5843	5725	5125	4296

File Description	Documents
Average percentage of students participating in extension activities with Govt. or NGO etc (Data Template as of 3.6.3)	<a href="#">View Documents</a>
Report of the event	<a href="#">View Documents</a>

**3.7 Collaboration**

**3.7.1 Number of collaborative activities with other institutions/ research establishment/industry for research and academic development of faculty and students per year**

**Response:** 4324

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	1373	1026	704	623	598

File Description	Documents
Number of Collaborative activities for research, faculty etc (Data Template)	<a href="#">View Documents</a>
Copies of collaboration	<a href="#">View Documents</a>

**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:** 257

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 during the last five years

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	79	52	50	41	35

File Description	Documents
<ul style="list-style-type: none"><li>e-copies of the MoUs with institution/ industry</li></ul>	<a href="#">View Documents</a>

**AAA Committee's Observations:**

The VFSTR has achieved a unique distinction in Research and Innovation by encouraging the faculty through various means and more. VFSTR spends on R&D upto 10% of the budget annually which is commendable. In a short span of 12 years Univesity has produced excellent researchers, a good number of Ph.Ds, several centers of excellence and sufficiently both intramural and extra mural funds for research leading to a large number of publications in Scopus, Web of Science, SCI indexed journals. Besides, the researchers have filed several patents ( both National and International). Recently the VFSTR have received the patent awards two Indian and two American patents. Some of the researchers have international recognition. A few departments like Biotechnology, Chemical Engineering, Food Technology, CSE, IT, MBA have excellent facilities for research with all the required instrumentation facilities. Infact the central instrumentation service center has several high end equipment for research and innovation. The committee observed that VFSTR can encourage the faculty to generate internal revenue by offering enelytical services. The Biotechnology department one of the faculty members has been listed top 2% scientists in the world as per the survey conducted by Stanford Universities, USA. It is a great recognition to the Institution. One of the best practices to promote research is the performance based incentives and inducements offered to the faculty. The VFSTR should pay more attention for industrial collaborations, MoUs and more Visiting and Adjunct Professors / Faculties to boost research. VFSTR researchers have generated a good amount of money through consultancy.

## 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.

Describe the adequacy of facilities for teaching –learning as per the minimum specified requirement by statutory bodies within a maximum of 500 words.

##### **Response:**

- 42.86-acre, lush green campus stimulating a wide gamut of teaching - learning and research activities.
- 1,80,388 Sq.m built up area (88,752 Sq.m for Classrooms, Labs. & Library, 43,987 Sq. m for hostels, guest house & health center, and 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/student.

##### **Facilities for teaching-learning:**

1. 127 well ventilated, spacious classrooms with 60-65 seating +36 tutorial rooms,
2. 40% classrooms air-conditioned with smart/ glass/ MI boards; rest 60% ICT enabled.
3. Average classroom area -89.53 Sq.m against AICTE norms of 66 Sq.m.
4. Classrooms optimally used for value added courses and 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:**

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

##### **Objectives:**

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

**Research Centres:**

Thrust areas are:

- 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):**

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

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

**Outcomes:**

About 2100 research articles and 32 patents published



### Skill Development Labs

- 8 Skill Development Labs worth Rs.6.91 Crores established in 2016 through collaboration with AP State Skill Development Corporation
- Training by M/S Siemens Corporation.

### Outcomes:

- 6940 students received training.
- Imparting hands-on training to rural youth for employability

### Computing Equipment

- Rs. 6 Crores spent between 2015-'20 for upgrading IT infrastructure.
- Centralized computing facility in 1250 Sq.m
- 2630 systems with 2.5:1 student-computer ratio
- 5000 Wi-Fi networked connections
- 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: Intel Xeon –Platinum processor 56 cores (2 x 28 cores), 1.5 TB RAM, 12TB Harddisk, 2 x NVIDIA Tesla V100 32 GB GPU)

### Utilization:

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

### File Description

Upload any additional information	View Document
Paste link for additional information	<a href="http://www.vignan.ac.in/Facilities">www.vignan.ac.in/Facilities</a> for teaching-learning

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

Describe the adequacy facilities for cultural activities, yoga, games (indoor, outdoor) and sports which include specification about area/size, year of establishment and user rate within minimum of 500 characters and maximum of 500 words.

### Response:

The institution endeavors 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**

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

### **Utility rate**

<b>S.No</b>	<b>Name of Club</b>	<b>Area Sq.m</b>	<b>Year of Establishment</b>	<b>Utility Rate</b>
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
	<b>Total - 1548</b>			

### **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 utilized by 400 students.

#### **Sports and Games facilities:**

- Sports facilities spread over an approximately 55,000 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**

Upload any additional information	<b>View Document</b>
Geotagged pictures	<b>View Document</b>
Paste link for additional information	<a href="http://www.vignan.ac.in/Facilities">www.vignan.ac.in/Facilities</a> for cultural activities

#### **4.1.3 Availability of general campus facilities and overall ambience**

Describe the general campus facilities and its utilization in maximum of 500 words.

#### **Response:**

A serene ambience with impressive infrastructure, well-furnished academic and administrative blocks equipped with all amenities caters to teaching learning and research needs.

##### **1. Excellent Green Campus:**

- 50% of campus under green cover, including a herbal garden with medicinal plants, a lotus pond, greenhouse and hydroponics, making VFSTR an eco-friendly and aesthetically pleasing campus.
- Institution undertakes regular 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, Student Affairs office, Finance Section, IQAC Office and some classrooms and laboratories etc.

##### **3. Hostel Facility**

- Availd by 35% students, hostels with built-up area, 35,150 Sq.m provide resident facilities for 2000 members.

##### **4. Rainwater and waste management:**

- A two-acre water harvesting facility 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 generated 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.
- Block-wise food kiosks available

**6. Medical Facility**

- A health centre with two resident doctors and paramedical staff provides an emergency primary healthcare support for all members of university.

**7. Guest House:**

- Comfortable Guest House with 40 A/C executive rooms, 2 dining halls, reception hall, with television, Wi-Fi etc., for visitors and foreign delegates.

**8. Banking Facility:**

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

**9. 24X7 Water and Power facility**

**Water Facilities:**

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

**Solar plant:**

- 1-MW roof-top solar power plant installed
- Solar water heaters in hostels, and solar battery vehicles on campus.

**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.
- Sophisticated block-wise fire alarm systems with foam extinguishers
- Training on safety and first-aid conducted periodically.
- 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**

Upload any additional information	<b>View Document</b>
Paste link for additional information	<a href="http://www.vignan.ac.in/General">www.vignan.ac.in/General</a> facilities

**4.1.4 Average percentage of expenditure excluding salary for infrastructure augmentation 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)

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

**File Description**

Upload any additional information	<b>View Document</b>
Upload audited utilization statements	<b>View Document</b>
Upload Details of budget allocation, excluding salary during the last five years (Data Template)	<b>View Document</b>

## 4.2 Library as a Learning Resource

### 4.2.1 Library is automated using Integrated Library Management System (ILMS)

#### and has digitization facility

Describe the implementation of the automation of the Library and the digitization facility available and used in maximum of 500 words

**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 around 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 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 around 7 Crores in the last five years of which 5 crores for purchase of books, journals, digital resources, and 2 crores for augmentation of infrastructure.
- ✓ Total no. of titles 27880, volumes 95000.

#### **Automation of Library:**

- ✓ The central Vignan- NTR 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 1200-1600 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
  1. Articles by experts in news papers
  2. Placements information
  3. Different companies achievements
  4. 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
- 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**

Upload any additional information	<b>View document</b>
Paste link for additional information	<a href="http://www.vignan.ac.in/library">www.vignan.ac.in/library</a> automation



#### 4.2.2 Institution has subscription for e-Library resources

Library has regular subscription for the following:

1. e – journals
2. e-books
3. e-ShodhSindhu
4. Shodhganga
5. Databases

#### Options:

- A. Any 4 or all of the above
- B. Any 3 of the above
- C. Any 2 of the above
- D. Any 1 of the above
- E. None of the above

**Response :** A. Any 4 or all of the above

#### File Description

Upload any additional information	<b>View document</b>
Details of subscriptions like e-journals, e-ShodhSindhu, Shodhganga Membership etc (Data Template)	<b>View document</b>

#### 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 :** 100.73

4.2.3.1: Annual expenditure for purchase of books and journals year wise during the last five years (INR in lakhs)

Year	2019-20	2018-19	2017-18	2016-17	2015-16
INR in lakhs	129.48	108.27	98.04	83.43	84.45

**File Description (Upload)**

Any additional information	<b>View document</b>
Audited statements of accounts	<b>View document</b>
Details of annual expenditure for purchase of books and journals during the last five years (Data Template	<b>View document</b>

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

**Response : 25.93**

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

**Response : 1906**

**File Description (Upload)**

Any additional information	<b>View document</b>
Details of library usage by teachers and students (Library accession register, online accession details to be provided as supporting documents)	<b>View document</b>

### 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**

Upload any additional information	<b>View document</b>
Paste link for additional information	<a href="http://www.vignan.ac.in/library">www.vignan.ac.in/library</a> <b>usage statistics</b>
Upload Number of classrooms and seminar halls with ICT enabled facilities(Data Template)	<b>View document</b>

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

Providing the salient features of the IT Policy and describe the process of implementation and adherence to the policy , budgetary provisions made and utilized and the expansion plan in maximum of 500 words

**Response :**

- Yes, an all-encompassing 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 of the same. Access to information assets are created, managed, and regulated with the help of IT infrastructure.
- A skilled IT team comprising of 6 technical personnel supported by 3 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 :**

- The institution should make available 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 life and their obsolescence.
- Institute to allocate budget sufficient to expand ever growing digital systems and services.(99% of budget allocated is used every year).
- The institute should maintain minimum of 1:2 computer student ratio and reach to 1:1 by the end of 2021.
- The entire curriculum to be digitalized by 2021.
- 80% of learning resources to be made available through internet.
- Disposal of e-waste to be done with environmental consciousness.

**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 backup 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.

**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 network 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 Open Distance Learning (ODL)
- Digital content management – expansion of internal and cloud storage.

**File Description**

Upload any additional information	<b>View document</b>
Paste link for additional information	<a href="http://www.vignan.ac.in/IT">www.vignan.ac.in/IT</a> policy

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

Number of students : Number of Computers available to students for academic purposes

**Response : 2.6**

**File Description**

Upload any additional information	<b>View document</b>
Student – computer ratio	<b>View document</b>

**4.3.4. Available bandwidth of internet connection in the Institution (Leased line)****Options:**

- A.  $\geq 1$  GBPS
- B. 500 MBPS - 1 GBPS
- C. 250 MBPS - 500 MBPS
- D. 50 MBPS - 250 MBPS
- E.  $< 50$  MBPS
- F.

**Response :  $\geq 1$  GBPS**

**File Description**

Upload any additional information	<b>View document</b>
Details of available bandwidth of internet connection in the Institution	<b>View document</b>

#### 4.3.5 Institution has the following Facilities for e-content development

1. Media center
2. Audio visual center
3. Lecture Capturing System(LCS)
4. Mixing equipment's and software's for editing

**Options:**

- A. All of the above
- B. 3 of the above
- C. 2 of the above
- D. 1 of the above
- E. None of the above

**Response :** A. All of the above

**File Description**

Upload any additional information	<b>View document</b>
Links of photographs	<a href="http://www.vignan.ac.in/geotagged">www.vignan.ac.in/geotagged</a> photos
Facilities for e-content development such as Media Centre, Recording facility, LCS etc.(Data Templates)	<b>View document</b>

#### 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 :** 46.26

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
INR in lakhs	2399.51	2345.11	2028.92	1788.79	1621.46

#### File Description

Upload any additional information	<b>View document</b>
Audited statements of accounts	<b>View document</b>
Details about assigned budget and expenditure on physical facilities and academic facilities (Data Templates)	<b>View document</b>

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

Describe policy details of systems and procedures for maintaining and utilizing physical, academic and support facilities on the website within a minimum of 500 word and maximum of 1000 words

#### 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 the institute 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 20-25% of its budget towards maintenance works.

#### **Procedures of maintenance and utilization:**

##### **Identifying problems:**

1. 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.
2. A continuous practice followed to check classrooms, notes status of furniture, fans, power, blackboards, projectors and CC cameras.
3. A procedure in place to receive complaints through online portal from staff and students
4. All fire safety equipment checked once a month.
5. The team oversees general maintenance of paint, power switches and general cleanliness.

##### **Preventive Maintenance:**

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

##### **Breakdown maintenance:**

1. Breakdown maintenance of any asset, facility and equipment, -whether or not under AMC or under preventive maintenance - is attended in mission-mode.
2. 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 of every semester, class in-charges and lab technicians under the deputy HoD will audit the functioning of computers, LCD projector and audio system.
- Minor issues identified are registered on the complaint portal, and resolved.
- Major repairs are referred to the suppliers of the instrument.
- Beginning of every semester, Lab in-charge and lab technicians under the deputy HoD will 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 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.
- The team takes preventive measures against white ants, shrinking and swelling of wood, corrosion of iron furniture etc.

#### **Sports Maintenance:**

Physical Director is the nodal authority for the maintenance of the sports and games facilities as well as resources under the purview of Dean Student Affairs.

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 all above systems and procedures in place for campus maintenance, the institution is successfully discharging all its activities in a smooth and orderly manner, and no major

problem has ever been faced in all the years since the inception of the institution.

#### **File Description**

Upload any additional information	<b>View Document</b>
Paste link for additional information	<a href="http://www.vignan.ac.in/Maintenance">www.vignan.ac.in/Maintenance</a> <b>policy and procedures</b>

#### **AAA Committee's Observations:**

Annually VFSTR spends 20% of the budget for capital expenses to create infrastructure on the campus. This has created a lush green campus with well-planned roads, modern buildings, gardens, play grounds, hostels and so on. All the buildings are friendly to differently abled. The VFSTR has an emphasis on green campus with roof top grid connected solar power plant, Bio gas plant, rain water harvesting, ground water recharging, gardens, hearty culture garden and so on. There is no water scarcity even during summer season. The Laboratory and class room infrastructure are excellent. Similarly the central library catering to the UG, PG and Doctoral students is commendable asset to the VFSTR. The VFSTR invests about one crore annually to equip the central library. The entire campus has Wi-Fi facility.

## 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:** 45.27

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)

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	4158	3559	2964	1978	1379

File Description	Document
Upload self attested letter with the list of students sanctioned scholarship	the list of students sanctioned scholarship under various heads
Upload any additional information	Policy Document
Average percentage of students benefited by scholarships and freeships provided by the institution, Government and non-government agencies (NGOs) during the last five years (Data Template)	Data Template

**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:** 82.23

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	6164	6355	4606	3881	3918

File Description	Document
Any additional information	Circulars and Reports
Number of students benefited by guidance for competitive examinations and career counselling during the last five years (Data Template)	Data Template

**5.1.3. Following Capacity development and skills enhancement initiatives are taken by the institution**

1. *Soft skills*
2. *Language and communication skills*
3. *Life skills (Yoga, physical fitness, health and hygiene)*
4. *Awareness of trends in technology*

**Options:**

- A. All of the above
- B. Any 3 of the above
- C. Any 2 of the above
- D. Any 1 of the above
- E. None of the above

**Response: A. All of the above**

File Description	Document
Link to Institutional website	Link
Any additional information	Circulars and Reports
Details of capacity development and skills enhancement schemes (Data Template)	Data Template

**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**

**Options:**

- A. All of the above
- B. Any 3 of the above
- C. Any 2 of the above
- D. Any 1 of the above
- E. None of the above

**Response: A. All of the above**

<b>File Description</b>	<b>Document</b>
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	Minutes of ICC, SGC, and ARC
Upload any additional information	Policy Document, Circulars and proceedings of the committees constitution
Details of student grievances including sexual harassment and ragging cases	Compliances submitted to UGC(as applicable)

## 5.2 Student Progression

### 5.2.1. Average percentage of students qualifying in state/ national/ international level examinations during the last five years

(eg:NET/SLET/GATE/GMAT/CAT/GRE/TOEFL/Civil Services/State government examinations)

**Response:** 82.42

5.2.1.1: Number of students qualifying in state/ national/ international level examinations (eg: NET/SLET/GATE/GMAT/CAT/GRE/TOEFL/ Civil services/State government examinations) year wise during the last five years

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	319	603	780	331	771

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	392	798	868	386	969

File Description	Document
Upload supporting data for the same	Qualifying Certificates of the students taking the examination year wise under each category
Any additional information	List of students year-wise under each head
Number of students qualifying in state/ national/ international level examinations during the last five years (Data Template)	Data Template

**5.2.2. Average percentage of placement of outgoing students during the last five years****Response:** 84.72

5.2.2.1: Number of outgoing students placed year wise during the last five years

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

File Description	Document
Self attested list of students placed	Self attested list of students placed
Upload any additional information	NIL
Details of student placement during the last five years (Data Template)	Data Template

**5.2.3. Percentage of recently graduated students who have progressed to higher education (previous graduating batch)****Response:** 11.95

5.2.3.1: Number of outgoing students progressing to higher education

File Description	Document
Upload supporting data for student/alumni	Self attested list of students and
Any additional information	Proofs of Admission letters/ID cards
Details of student progression to higher education (Data Template)	Data Template



## 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:** 606

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	185	123	113	99	86

File Description	Document
e-copies of award letters and certificates	e-copies of award letters and certificates
Any additional information	Glimpses of awards and medals won by students
Number of awards/medals for outstanding performance in sports/cultural activities at inter-university/state/ national/international level during the last five year (Data Template)	Data Template

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

Describe the *Student Council and its activities for institutional development and student welfare* within a maximum of 500 words

**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 relate to student life and study 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 playing an active role in different committees help to create a vibrant campus culture and a distinct institutional brand in the State of A.P.

#### **Contribution for Institutional development:**

To name a few:

- Library software EZ Lib completely developed and updated by students with guidance from faculty in automation of various library activities.
- Students participate in CMC meetings, to provide feedback and thereby help in improving teaching.
- Students participate as observers in various apex body meetings like Academic Council, and help to disseminate information to all students.
- Students promote and manage hosting of all the events. A team of students coordinates and volunteer their help to the Training and Placement Cell, which spearheads all training activities and placement process.
- Create awareness on Swacch Vignan to other students, and campaign for Swachtha in the neighborhood, thus improving the brand of the institution.

#### **Contribution to student welfare:**

- SAC extends help to less privileged students, financially or in other ways.
- The gender champions (two girl and two boy students) contribute to the gender sensitivity activities.
- SAC organize voluntary contributions and service during emergencies and disasters.
- SAC contributes to relaxed and stress-free environment for the students, by organizing co-curricular club activities.
- SAC helps the institution to maintain health records of the students.

#### **Outcome:**

- *Students are supportive and cooperative in implementing all systems, academic, co and extracurricular activities.*
- *Campus is ragging free with no incidence of student unrest or indiscipline, ragging or vandalism in last five years.*
- *80-85% of students successful in securing jobs through campus recruitment drives.*
- *Leadership opportunities and training provided on campus has helped many students to realize their potential and enabled them to enjoy fast track growth in their careers.*
- *20-25 start-ups evolved in last 3-4 years, of which 6-7 are very successful.*

- *In last five years more than 600 medals are bagged by students at various sports and cultural competitions.*

Thus, students develop into well balanced and mature professionals with good team skills and leadership abilities.

File Description	Document
Paste link for additional information	SAC selection procedure, proceedings, list of events organized by SAC
Upload any additional information	Glimpses of Activities organized by SAC, special volume SSP

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

**Response:** 46.8

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	54	54	49	40	37

File Description	Document
Report of the event	Reports(Year wise)
Upload any additional information	Circulars, list of students participated & Glimpses of sports and cultural activities
Number of sports and cultural events / competitions organised per year (Data Template)	Data Template

## 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 during the last five years***

Describe contribution of alumni association to the institution within a maximum of 500 words

#### **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 2013 under the Andhra Pradesh Societies Registration Act, 2001.

The alumni association is composed of:

1. President - Alumni student
2. Vice President - Alumni student
3. Secretary - Senior faculty member
4. Treasurer - Finance officer

VFSTRAA has five chapters in India and two abroad, i.e., Australia and Canada. Every chapter has its own administrative body and keeps its members connected. The official Alumni Database is maintained at <http://vignanalumni.org>. Also, every department maintains its own database and are in touch with alumni through Alumni connect network, social networking 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 act as members of BoS, deliver guest lectures, facilitate internships, assistance in Placements, organize Industry visits and extend support to students seeking study abroad.

The Alumni Association Committee conducts activities and supports the Alma matter in its betterment. Institute organizes Alumni meets periodically, once in 6 months. A team of faculty and students supported by Alumni contributed to develop an ERP system that provides administrative and functional assistance. Distinguished alumni are recognized and honored by the university. Few of VFSTR's distinguished alumni are Shri.Shridhar Babu Addanki, IAS, secretary -Tobacco Board, Mr. Anil Ravipudi, an Indian film director.

Alumni support in the following:

#### **i. Academics:**

- Curriculum enrichment through inputs to bridge gap between Industry and Institute.
- Guest lectures on emerging areas.
- Suggesting value added courses.
- Suggestions for improvement of lab components with industry inputs.
- As Speakers/ Sponsors during workshops/ conferences.

#### **ii. Placements and Internships:**

A good number of alumni are at middle level and executive positions in various industries. They refer companies to visit campus and 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.
- Share lateral job postings for fellow alumni.

**iii. Entrepreneurship:**

- Alumni, who are well-settled, organize training camps on campus for four - five days to create awareness on registration process of a start-up, teething troubles, financial guidance to seek banks loans, market scenario etc.
- Some alumni show readiness to extend small funding.
- Alumni having their own enterprises offer internships to existing students.
- Connect district MSME officials to institution.

**iv. Higher education:**

- Alumni guide juniors on admission process abroad, desirable scores in GRE, IELTS, TOEFL, scholarship opportunities etc.
- They facilitate adjustment of their juniors when they travel to Australia, Europe, USA etc.,

VFSTR is thus availing value from the Alumni Network to build its reputation, which depends on how successful its graduates are in real world.

File Description	Document
Paste link for additional information	Alumni Association Registration certificate
Upload any additional information	Proceedings of Alumni committee constitution, Glimpses of Alumni meets, reports of alumni meets

**5.4.2. Alumni contribution during the last five years (INR in lakhs)**

Options:

- A.  $\geq 100$  Lakhs
- B. 50Lakhs - 100 Lakhs
- C. 20 Lakhs - 50 Lakhs
- D. 5 Lakhs - 20 Lakhs
- E.  $<5$  Lakhs

**Response:** A.  $\geq 100$  Lakhs

File Description	Document
Upload any additional information	Alumni contribution list and audited statements

**AAA Committee's Observations:**

The VFSTR encourages academic merit through scholarships and concessions. It facilitates capacity development and skill enhancement beyond the curriculum through initiatives to promote soft skills, communication skills, life skills, awareness on technology trends etc. VFSTR has active elected student council through which various events and student welfare measures are executed. Student involvement in planning and execution is considered a part of leadership and personality development. The most interesting part of the student support is the transparency and approachability of the top management for the students to discuss their problems and issues. The students are also facilitated with over 76 buses connecting the neighboring towns and cities within the radius of 50 KM. The students are encouraged to take-up industrial projects, participate in seminars, conferences and even sending to overseas laboratories. Students are facilitated to special coaching like GATE, TOEFL, Civil Services so on. Mentoring and Counseling by the faculty and psychologist are offered to the students. Students are provided with free health care facility. VFSTR has achieved overall 75% of placements with some departments given 99%. Alumni has established alumni chapters at various cities and have been participating in delivering guest lectures and internship programs. Several notable personalities including noble laureate are invited to address and motivate the students. The committee observed that the VFSTR being located in rural area the parents visiting their wards need some accommodation to overnight stay. Students are insisting on increased industrial exposure through industrial visits, internships and industry oriented projects. Industrial visits are expected to be included as a part of academic calendar. The committee recommends a weekly newsletter to be brought out through the students activity council. The difficulties of Wi-Fi connectivity in certain pockets of the campus need to be upgraded.

## 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

Write description in maximum of 500 words

#### Response

The important 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 faculty from premier institutions.
- Regular curricular revision for inclusion of courses in emerging areas
- Project based teaching to promote innovative thinking and skill development
- Programming skills imparted to make students industry ready.
- Semester long industry internship for students to pursue latest technologies.
- Students encouraged on 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 second year.

#### Administrative measures to create internationally accepted professionals:

- Participative management from top to bottom.
- Involving industrialists into Apex Bodies to bridge gap between Industry and Academia.
- Collaboration with other academic institutions and industries.
- Students facilitated 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, freedom fighters 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& 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 on extraordinary social service carried out
- Faculty awards for exemplary support rendered through counseling, for correcting students with psychological/ emotional issues.
- Recognizing and rewarding students for exemplary conduct on campus.
- Students involved in extension activities in neighboring villages and funded projects with societal relevance.

**Impact:**

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
Paste link for additional information	<a href="https://www.vignan.ac.in/vision.php">https://www.vignan.ac.in/vision.php</a>
Upload any additional information	Profiles of Apex body members

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

Write description in maximum of 500 words

**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, Fmr. Director, ISRO & CTO, Yazmi, LLC, USA,
  - ✓ Prof. Bayya Yegnanarayana, Fmr. Professor Emeritus, IIT, Madras.
  - ✓ Dr. 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:**

Students act as members in relevant committees and policies are disseminated top to bottom.

- ✓ 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.

### **Conclusion:**

The apex body members, various university executives, and faculty-student committees work in coordination though in a decentralized manner, upholding the principle of participative management. These efforts help to forge a consensus among all stakeholders, resulting in a vibrant and stimulating campus culture and harmonious relations among its members.

File Description	Document
Paste link for additional information	<a href="https://www.vignan.ac.in/apex.php">https://www.vignan.ac.in/apex.php</a>
Upload any additional information	Composition of various committees

## 6.2 Strategy Development and Deployment

### 6.2.1 The institutional Strategic plan is effectively deployed.

Describe one successfully implemented activity based on the strategic plan within a maximum of 500 words

#### Response

VFSTR has a well-structured Planning and Monitoring Board (PMB), which provides perspective and direction for strategic planning and formulating long term and short-term goals of the institution.

The projected activities are derived through formal and informal discussions in AC, PMB and BoM and through regular interactions among internal executives.

The strategic plan of the institute, for next five years aims at the following:

- a. Project based learning and Self-learning by students through digital resources
- b. Strengthening of Research and Development through industry collaboration
- c. Creation of specialized Centres of Excellence, promotion of product and process oriented research with local relevance
- d. Improvement of publications and institutional *h*-index
- e. Promoting culture of continuous learning among faculty
- f. Developing infrastructure for digital learning and environmental sustainability

#### **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. Publications 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 1.4 to 4.4 per faculty from first cycle to second cycle of NAAC.
- The *h*-index of institute improved to 25, 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 2019.
- 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	<a href="https://www.vignan.ac.in/naac/P&amp;M.pdf">https://www.vignan.ac.in/naac/P&amp;M.pdf</a>
Link for additional information	MoM of PMB

Upload any additional information	Booklet of Strategic plan
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**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.**

Write description in maximum of 500 words

**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.

- 1. 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.
- 2. 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.
- 3. 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.
- 4. 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 quality faculty with Ph.D. qualification 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 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
Paste link for additional information	<a href="https://www.vignan.ac.in/policies.php">https://www.vignan.ac.in/policies.php</a>
Link to Organogram of the University webpage	<a href="https://www.vignan.ac.in/structure.php">https://www.vignan.ac.in/structure.php</a>
Upload any additional information	Service rules and procedures booklet

### 6.2.3 Institution Implements e-governance in its areas of operations

6.2.3.1 e-governance is implemented covering following areas of operation

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

**Options:**

- A. All of the above
- B. Any 3 of the above
- C. Any 2 of the above
- D. Any 1 of the above
- E. None of the above

**Response: A. All of the above**

File Description	Document
ERP (Enterprise Resource Planning) Document	ERP Comprehensive Document
Screen shots of user interfaces	Screen shots of user interfaces
Any additional information	ERP Extensive Document
Details of implementation of e-governance in areas of operation, Administration etc	Data Template
Link for additional information	Policy for e-governance

## 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

Write description in maximum of 500 words

#### 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 care list research publications 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
Paste link for additional information	Web link for welfare measures
Upload any additional information	Registrar proceedings for appraisal committees

**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: 81.62**

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	456	411	387	358	335

File Description	Document
Link for additional information	Policy document on providing financial assistance
Details of teachers provided with financial support to attend conferences, workshops etc. during the last five years (Data Template)	Data Template

**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: 67.8**

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	70	78	68	64	59

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centres)	Report from Registrar (HR)
Reports of Academic Staff College or similar centers	Report from Dean AFD
Link for Additional Information	Policy document for providing financial

	assistance
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff	Data Template
Any additional information	Annual Reports highlighting the events

**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: 87.7**

6.3.4.1: Total number 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 )year wise during the last five years

Year	2019-20	2018-19	2017-18	2016-17	2015-16
Number	503	432	415	388	356

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	Report from Registrar (HR)
Link for Additional Information	Annual Reports
IQAC report summary	IQAC report summary
Details of teachers attending professional development Programmes during the last five years (Data Template)	Data Template
Any additional information	e-copies of certificates

## 6.4 Financial Management and Resource Mobilization

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

Describe the resource mobilisation policy and procedures of the Institution within a maximum of 500 words

#### Response:

As a self-financing institution, VFSTR generates funds through tuition fees paid by students, additional funds from Government and other funding agencies such as DST, DBT etc., 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 countries like Afghanistan, Sudan, Nepal, Africa and Bhutan.
- **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
- **Earnings from conferences and workshops:** A planned budget approved by office of Registrar ensures smooth conduct of conferences and workshops.
- **Research grants:** Following guidelines of funding agencies, proposals are submitted for grant of research projects. 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.
- **Projects with Government Agencies:** Projects like testing of soil fertility, applying latest agricultural tools for water optimization, fertilizer, seed availability, and awareness of food products through online services are in process of preparation, for submission to respective funding agencies.
- **Funds through Sponsorships:** Institution seeks out philanthropists and industrialists to seek funds for establishing new laboratories and centres. Sponsorships sought for conduct of youth festivals.

**Overall expenditure:**

Around 85% of revenue spent on salaries and administrative expenses –

- 30 to 40 % for salaries,
- 10 % for R&D,
- 15-17 % for student scholarships
- 20 - 25% for administrative expenses.
- Surplus 10 – 15% utilized for augmenting infrastructure and laboratories.

**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
Paste link for additional information	Policy document
Upload any additional information	Expenditure statements

**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 Lakhs**

6.4.2.1: Total 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**)

Year	2019-20	2018-19	2017-18	2016-17	2015-16
INR in <b>Lakhs</b>	0	0	0	691	0

File Description	Document
Annual statements of accounts	Annual statements of accounts
Any additional information	Letters from APSSDC
Details of Funds / Grants received from government bodies during the last five years (Data Template as of 6.4.2)	Data Template
Link for Additional Information	-----

**6.4.3 Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years for development and maintenance of infrastructure (not covered under Criteria III and V ) (INR in Lakhs)**

**Response: 1329.9 Lakhs**

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

Year	2019-20	2018-19	2017-18	2016-17	2015-16
INR in <b>Lakhs</b>	75	90	85	1014.9	65

File Description	Document
Annual statements of accounts	Annual statements of accounts
Any additional information	Letters from philanthropists
Details of Funds / Grants received from non-government bodies during the last five years (Data Template as of 6.4.2)	Data Template
Link for Additional Information	-----

#### 6.4.4 Institution conducts internal and external financial audits regularly

Enumerate the various internal and external financial audits carried out during the last five years with the mechanism for settling audit objections within a maximum of 500 words

##### **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 shows the transparency.

### **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 adopted.

### **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 in unrealized revenues or long pending payments are approved by Vice-Chancellor on merit of the cases.
- Waving of the fees or 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.

1. The institution follows accounting procedures as per guidelines of ICAI.
2. The tax deduction at source (TDS) deducted by finance office as per provisions of Income Tax Act.
3. Powers of disbursement are made transparent. The delegation of powers depends on the position and hierarchy with proper autonomy and monitoring system.
4. All the transactions are transparent. All receipts and payments are in cheque mode facilitating cashless transactions and verification.
5. No diversion of funds

Infrastructure augmentation using the small surplus in annual funds is decided by the management.

<b>File Description</b>	<b>Document</b>
Paste link for additional information	Web link for audit statements
Upload any additional information	Audit reports

## 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**

Describe two practices institutionalized as a result of IQAC initiatives within a maximum of 500 words

**Response:**

IQAC has steered the institution in initiating and strengthening many practices that has enabled in overall quality improvement in academic, research and administrative processes.

**Initiatives in teaching-learning are:**

1. Mechanism to screen faculty applications to enable recruitment of almost 30% faculty from IITs and NITs.
2. Strategy for transforming new faculty into successful teachers through FOP
3. Mechanism for verifying faculty preparation and content
4. Promotion of ICT usage in delivery of lecture content.
5. Attractive digital content is initiated.

**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 Academy of Faculty Development (AFD), 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 course
- Counseling techniques to address emotional, behavioral and psychological, issues of students.

❖ **Experts:**

- In-house team comprising Deans, HoDs and senior professors
- Head AFD 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:**

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

**Case study 2: Creating Research Environment in the Institution**

VFSTR enjoys an active and supportive atmosphere for research and development. Based on suggestions of NAAC-2015 Review Committee, and recommendations of IQAC, following improvements are institutionalized:

❖ **Improving existing facilities:**

- Advisory committee for Center of Excellence/ Research Centers to ensure optimal utilization.
- **Creation of new laboratories:**
  - Structural engineering lab with 100T loading created for advanced studies in concrete and other materials.
  - CPCSEA approved Animal house.
  - Robotics research laboratory - MIG welding robot and complex moving robots.
  - 3D experiencing laboratory for creating designs for 3D printing.
  - Centre of Excellence on RF and Micro Wave design in association with M/s Keysight Technology
  - Unmanned Aerial Vehicles (UAV) laboratory.
- **Research Core Group:** 10% of faculty earmarked for research, who also mentor other faculty.
- **Incentives for Research:**
  - Cash incentives initiated for papers published in peer reviewed SCI / Scopus journals/ books/ projects
  - Expenditure in last five years - Rs. 80 lakhs.

❖ **Monthly fellowships for full time scholars:** Fellowship of Rs.18000/- and Rs.25000/- per month in science and engineering disciplines.

**Evidence of Success:**

- Paper publications and projects submission improved substantially.
- Projects worth Rs.107.78 lakhs approved every year by Government agencies like DST/DBT. Currently 27 proposals worth Rs.3425 lakhs submitted are under review.
- 32 patents filed, and published. 4 patents granted, of which 2 are US patents.

File Description	Document
Paste link for additional information	<a href="https://www.vignan.ac.in/iqacmom.php">https://www.vignan.ac.in/iqacmom.php</a>
Upload any additional information	Write up on various IQAC activities

**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)***

**Options:**

- A. Any 5 or all of the above
- B. Any 4 of the above
- C. Any 3 of the above
- D. Any 2 of the above
- E. Any 1of the above

**Response: A. Any 5 or all of the above**

File Description	Document
Paste web link of Annual reports of University	Annual reports of University
Upload e-copies of the accreditations and certifications	e-copies of the accreditations and certifications
Upload details of Quality assurance initiatives of the institution (Data Template)	Data Template
Link for Additional Information	IQAC Activities
Any additional information	Reports on various activities conducted by IQAC

**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)***

Describe quality enhancement initiatives in the academic and administrative domains successfully implemented during the last five years within a Maximum of 500 words each

**Response:**

IQAC continuously monitors all activities related to academic, research, and policy implementation of the institute. It maintains all important data and information of the institute and offers recommendations on initiatives to be taken, and activities to be strengthened for enhancing quality in academics, research and administration.

Following are some of the quality enhancement initiatives recommended by IQAC in the academic and administrative domains:

**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.
  - Project based curriculum was introduced in R16 as a main element in final semester in lieu of industry internship. Minor projects were introduced in some courses as a supplementary element.
  - The R19 (UG B.Tech.) curriculum allocated a much higher percentage of credits for project based learning. Accordingly 14% of total credits were assigned for projects to be carried out from second semester to final semester categorized as intra-departmental, inter-disciplinary, and society oriented.

- **Skill enhancement**

The initiative of A.P State to start Skill development laboratories coincided with the IQAC recommendation on skill improvements. Hence VFSTR in association with A.P Govt. established eight skill development laboratories. The 1<sup>st</sup> year students carry out a number of skill-learning activities/experiments in these labs. (The skills thus acquired help students to properly execute projects in the remaining years of program)

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

In response to the exponential growth of technology in various engineering fields, IQAC has suggested inclusion of more courses as short duration value-added courses. These value-added courses are delivered by industry experts in emerging areas like – IoT, Robotics, UAV, AI, Nano-Biotechnology, Biopharming, Advanced composites etc.

**408** value-added courses were conducted in various programs in last five years.

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

Implementation of digital technologies and utilization of computers is the trend in the library systems, archiving and accessing of articles for identification of research fronts. Foreseeing this, IQAC recommended that VFSTR library should concentrate more on 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 for pursuing multidisciplinary product/ process oriented research in each program. This is implemented in all departments and research outcomes in terms of publications, research scholars and projects improved many fold in last five years

- **Institute Industry interaction**

Semester long industry internship for all students in the final year was already introduced in the curriculum of R13, and continued in R16 & R19. 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. Thus about 50 faculty from all departments spend 2 to 4 weeks in industries identifying industry problems and also latest technologies employed.

IQAC also recommended increase in number of industry experts in BoS of each program. **63 industry experts** 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. The recommendation initiated informal discussions with various apex body members, and formal discussion in PMB. 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. All developmental activities of the institute derive their guidance from this strategic plan.

- **Strengthening of e-governance**

e-governance as an effective tool optimally used to improve academics for incorporating digital content, conducting research utilizing databases, administration by having records. e-governance, thus saves lot of time, so that members are able to utilize their time more gainfully. e-governance in administration, student admission, student support, examination and library is implemented to maintain databases effectively. The initiative has also enabled to limiting administrative manpower, to focus more on faculty.

- **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. This enabled the institute to offer 4 new emerging programs – CSE (AI), CSE (Cyber security), Computer science and Business Systems, Robotics and Automation.

- **Autonomy of faculty**

- Faculty develop their own templates to assess student attainment levels as per OBE.
- HoDs enjoy full autonomy to allot academic, research and administrative activities to faculty.
- Deans enjoy full autonomy in introducing new initiatives in their chosen areas.

All the 11 recommendations made by the NAAC team of cycle-I are completely fulfilled

- Residential quarters for faculty and non-teaching staff members
- Better infrastructure for faculty members
- High quality research publications
- Professional bodies /Student chapters/ events
- Upgrading University Science and Instrumentation Centre
- Availability of Wi-Fi
- Extra mural funding
- Training & placements activities in core companies should be more effective
- Increasing consultancy to enhance both skill & financial resources
- International faculties should be invited on the campus
- Strengthening IQAC

All these specific actions initiated by VFSTR based on each of the recommendations made by NAAC in its first review report are provided as additional information in Annexure 1

File Description	Document	
Paste link for additional information	Supporting information	
Upload any additional information	Status on the NAAC Cycle – I recommendations	

### **AAA Committee's Observations:**

VFSTR has a highly professional and effective management system to achieve the vision and mission of the institution. Necessary measures are taken to generate socially conscious Physically Strong and emotionally balanced professionals. Most of the top level administrators of VFSTR have overseas exposure and highly qualified, well experienced to bringing highly effective Governance system. All the top management including the Chairman and the Chancellor are accessible and approachable to the stakeholders. The Board of Management has great visionaries drawn from various walks of life and are readily approachable to stakeholders. There is not even a single ragging case on the campus which reflects up on the safety on the campus. Student participation in various committees is ensured. There is a serious attempt to implement e-governance system and reduced paper work.



## 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.

Describe gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words

**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 on Sakshi 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 to ensure safety on campus for girls/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
Annual gender sensitization action plan	<b>View Document</b>
Specific facilities provided for women	<b>View Document</b>

**Environmental Consciousness and Sustainability**

**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

**Options:**

A. Any 4 or All of the above

B. 3 of the above

C. 2 of the above

D. 1 of the above

E. None of the above

**Response:** A. Any 4 or All of the above

File Description	Document
Geotagged Photographs	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

**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.

#### **Biomedical waste management**

- Sanitary and bio medical waste incinerated through the on-campus incineration facility (see annexure) and also given to a certified agency for incineration.

#### **E-Waste Management**

- VFSTR electrical maintenance team regularly monitors E-waste generation and routinely collects electrical waste, stores it, to periodically segregate and dispose it.

#### **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	<b>View Document</b>
Geotagged photographs of the facilities	<b>View Document</b>
Any other relevant information	<b>View Document</b>

#### 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 ☐

#### Options:

- A. Any 4 or all of the above
- B. 3 of the above
- C. 2 of the above
- D. 1 of the above
- E. None of the above

**Response : A.** Any 4 or all of the above

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

**7.1.5 Green campus initiatives include**

7.1.5.1. The institutional initiatives for greening the campus are as follows:

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 ☐

**Options:**

A. Any 4 or All of the above

B. 3 of the above

C. 2 of the above

D. 1 of the above

E. None of the above

**Response: A. Any 4 or All of the above**

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

**7.1.6 Quality audits on environment and energy are regularly undertaken by the institution**

7.1.6.1. The institutional environment and energy initiatives are confirmed through the following

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

**Options:**

- A. Any 4 or all of the above
- B. 3 of the above
- C. 2 of the above
- D. 1 of the above
- E. None of the above

**Response:** Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	<a href="#">View Document</a>
Certification by the auditing agency	<a href="#">View Document</a>
Certificates of the awards received	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

**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 ☐

**Options:**

- A. Any 4 or all of the above
- B. 3 of the above
- C. 2 of the above
- D. 1 of the above
- E. None of the above

**Response:** Any 4 or all of the above

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



**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 & 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 Day etc. 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 (60% 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)	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

**7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens**

Describe the various activities in the Institution for inculcating values for being responsible citizens as reflected in the Constitution of India within 500 words.

**Response :**

The institution generates awareness among students on constitutional rights and duties through various campus events and endeavors 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 sensitize 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 2<sup>nd</sup> October to foster values of non-violence, eradication of untouchability, Hindu Muslim unity, and truthfulness among students and faculty.
- 150<sup>th</sup> birth anniversary of Mahatma on 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 Chalameshwar; Shri. Madabhushi.Sridhar; Shri A. Sreedhar Babu, IAS; Prof. Koteswara 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. Kailash Satyarthi- To develop the spirit of compassion.**

- Nobel Peace Laureate, Dr. Kailash Satyarthi invited for educating students on human rights and eradication of child labor.
- He enlightened students on severity of the problem and administered a pledge to fight against child labour.
- VFSTR signed an MoU with Satyarthi 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.

File Description	Document
Details of activities that inculcate values; necessary to render students in to responsible citizens	<b>View Document</b>
Any other relevant information	<b>View Document</b>

**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

☐
☐
☐
☐

**Options:**

- A. All of the above
- B. 3 of the above
- C. 2 of the above
- D. 1 of the above
- E. None of the above

**Response : A.** All of the above

File Description	Document
Code of ethics policy document	<a href="#">View Document</a>
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.	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

**7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals**

Describe the efforts of the Institution in celebrating /organizing national and international commemorative days, events and festivals during the last five years within 500 words

**Response :**

The institution organizes national and international commemorative days, events and festivals to promote a spirit of nationalism and patriotic fervor among students and faculty. Institute has constituted the “National and International Days Celebration Committee” comprising of faculty, staff and students. This committee organizes 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.

Women Empowerment and Development Cell celebrates **International Women’s Day 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.

**Environment Day** is celebrated every year 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 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 with due respect every year 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.

**International Yoga Day** is conducted 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.

**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 scientific temper, national pride, cultural values and religious harmony among students.

File Description	Document
Annual report of the celebrations and commemorative events for the last five years	<a href="#">View Document</a>
Geotagged photographs of some of the events	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

## **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 :**

**Best practice -I**

**Title of the Best practice : Faculty Development Programme**

### **Introduction:**

VFSTR strongly believes that Human resources is an important element which is needed to realize the Institute's goals and aspirations. Hence, VFSTR is trying to maintain high 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, nurtures and retains 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 "readymade" faculty will not be available at any given point of time. Hence Faculty Development Programme is considered as a serious activity to prepare and mold the faculty.

### **Objectives :**

The objectives of the Faculty Development Programmes are to enable newly recruited faculty to:

1. Understand the significance of higher education, in the global and Indian contexts
2. Acquire and improve art of teaching at the university level to achieve goals of higher education, and to be effective in transfer of knowledge
3. Accord importance to research activity in addition to academic activity
4. Understand the linkages between education and socio-economic, and cultural development.
5. Keep abreast of the latest developments in their specific subjects, and acquire knowledge and skills in new and emerging areas
6. Understand the organization and management of the Institute and to perceive the role of teachers in the total system
7. To make faculty familiar with the philosophy and culture of the institution, especially to make every program student-centric.
8. To work as a matured counsellor to the students, and to contribute to their overall development.

9. To train the faculty on the basics of administrative work.
10. No faculty should be failure in the class room.
11. To familiarize usage of ICT 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 practiced in the following ways :

**A. Induction 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 i.e., 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.

**B. Faculty development program by the external agencies:**

External agencies like NITTTR Bhopal and NITTTR Chandigarh and other experts are invited to develop the faculty in the following areas:

- Teaching and evaluation methods oriented towards outcome-based education
- Various modes of setting the question papers
- Other evaluation methods suitable for assessing the POs and PSOs.
- Methods to encourage the self-learning among the students.

**C. Faculty development through exposure to the industry:**

10% of the faculty at the end of each semester has to go to the industry, spend there 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.

#### **D. Faculty Enrichment :**

The institute has initiated special programs 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 programmes 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.Few faculty worked in industries for 2-3 weeks in the last five years. In fact, the FDPs are 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.
- No incidents of unrest among faculty or students in the institution since its inception.
- A very healthy relation is maintained between faculty and students.
- 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:**

- There is a natural resistance for the training as most of the faculty are recruited from the premier institutions with Ph.D qualifications.
- 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.
- There is specific reluctance to the programme from those who are already having a lot of experience.

**Conclusion / 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 standard 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.

**Best practice –II****Title of the Best Practice:** Health of the 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. Initially parents criticized the initiative because they were not aware of the connection between health and performance, and worried about exposing their wards to the rigor of physical exercises in the field.
3. Some students, particularly girls, expressed inhibitions to participate in the exercises.
4. Some of the faculty also raised objection for making physical fitness as a credit based course because AICTE neither suggested, nor any institute is practicing the same.
5. An investment to the tune of Rs.70-80 lakhs was needed on the sports facility, and equipment for an Open Air Gym facility.
6. Requirement of a good play ground and basketball courts costing roughly Rs.40-50 lakhs, and also the requirement of investment on consumables.
7. Requirement of extra spending on employing Physical Directors and Coaches.
8. It is challenging to identify and to recruit the relevant coaches.
9. Extra expenses are to be incurred for providing special food.
10. 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 INDIA** mission of 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.

<b>File Description</b>	<b>Document</b>
Best practices in the Institutional web site	<b>View Document</b>
Any other relevant information	<b>View Document</b>

### 7.3 Institutional Distinctiveness

#### 7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust with in 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 highest 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 this factor 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 from 10 – 75% of fee to about 30 – 40% of the students. Some of the students are supported with subsidy in hostel fee also.

In the bridge course itself special efforts are put in 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 100hour 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 in the start of their journey into the academic and professional life.

**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.

In addition to class room teaching, new technologies and digital resources are made available to students. A few of such resources are – E-content prepared by the institute, online educational sources like NPTEL, Coursera etc.,

**Step 4:Development of Attitudes such as team spirit, inter personnel 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 20 students to concentrate and counsel. These counsellors study the students about their 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, and these mentors are provided with financial support for this activity. This practice helps both types of 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. To enrich students' skills and provide them with an exposure to diversified fields, Saturdays have been earmarked exclusively for organizing co-curricular and extracurricular activities through the 10 optional clubs.

#### **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.

It is customary for the institution to conduct parent felicitation every year to appreciate 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 and taking same to the institution to find solutions.
- Understanding the regional and national problems and the trends in technology



and social perceptions

-Attending real social problems through extension activities and the transfer of knowledge to the society, especially on Education, Health, Technical Skills, and other facilities like sanitation, cleanliness

-Conduct of competitions on social issues at different events like Vignan Mahotsav, National festivals etc.

#### **Step 7 :Success of the Effort**

More than 90% of the students are getting placement in the campus itself and some of them are recruited for higher level jobs also.

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.

It is very interesting to note a few of this kind of students exhibit their leadership qualities in the work and grown faster in their careers than their colleagues because of the inputs continuously given by the institute.

With all above efforts the institution is happy to inform that it is able to create access to quality education to the rural society leading to regional development. It is also satisfying that the Institute is able to meaningfully serve the youth from economically backward communities in this region. 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 is justifiably proud and 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 rural and agricultural region.

<b>File Description</b>	<b>Document</b>
Appropriate web in the Institutional website	<a href="http://www.vignan.ac.in/">www.vignan.ac.in/</a> Appropriate web in the Institutional website
Any other relevant information	<a href="http://www.vignan.ac.in/">www.vignan.ac.in/</a> Any other relevant information

## 5. CONCLUSION

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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. This access to Higher Education to the rural population is in line with the mission of the Government of India also.

The Institution is maintaining consistent results of more than 90% pass, and placements to the extent of 85%. This consistent performance and outcome is the reason for the trust and confidence of the public.

In the last 5 years, research has received a big boost. The faculty achieved 4.4 publications per faculty with the total number of publications reaching 2200, and improvement of h-index to 27 from 8 in the NAAC first cycle.

There is excellent growth in all areas in the last five years. Further, 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 of Strategic Plan are :

1. To make 100% faculty with Ph.D qualification.
2. Research output of 2 papers per faculty per year from the current 1 per year.
3. Funded projects to raise up to 80-90 crores.
4. *h*-index to be improved to 50-60.
5. At least 15-20% of students should earn stipend by working with service industries online.

To meet the above goals, Institute plans to invest in Advanced Laboratories in the emerging areas, various Centers of Excellence, Student Project Complex, Expansion of Technology and Business Incubation Centers, Waste Management Processing Centers in the next 3 to 5 years.


The ultimate goal of the university is to produce high-quality and globally competitive professionals for national development, who will be imbued with ethical and social values. They will be active assets of future India.

Considering the contribution of the Institution for the development of society and by considering its future plans with clear objectives and Strategic Planning, we request NAAC to appreciate the efforts that VFSTR is making to serve the society and nation at large.

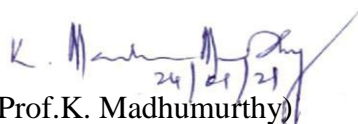
## Criterion - VII

### AAA Committee's Observations:


Institution has several best practices such as Gender equality, non-discriminatory, Ecofriendly campus promoting social responsibility, moral and ethics. Environmentally friendly campus with minimum CO<sub>2</sub> emission has been achieved. Facilities have been created to recycle, reuse both solid and liquid waste. VFSTR has a special mention for the waste management. It is noted that the management has a strong vision to offer high quality education with subsidized fee structure in a rural environment and bring the benefits of technology to the surrounding communities. One of the best practices is the Faculty Development and Faculty Enrichment Programs. The researchers are rewarded with incentives and similarly meritorious students are recognized and rewarded. The best students are nurtured. National and International mobility of faculty and students is highly appreciated. VFSTR enjoys the benefit of the total trust and commitment of the employees and the students that helps in the institution building.



(Prof.H.D. Charan)



(Prof.K. Madhumurthy)



24/01/2024  
(Prof.K. Byrappa)  
Chairman, AAAC



# VIGNAN'S FOUNDATION

FOR SCIENCE, TECHNOLOGY AND RESEARCH

## **VIGNAN'S FOUNDATION**

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