

# FOR 1<sup>st</sup> CYCLE OF ACCREDITATION

## VIVEKANAND EDUCATION SOCIETY'S INSTITUTE OF TECHNOLOGY

HASHU ADVANI MEMORIAL COMPLEX, COLLECTORS COLONY, R. C. MARG, CHEMBUR 400074

https://vesit.ves.ac.in

#### Submitted To

# NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL BANGALORE

(Draft)

#### 1. EXECUTIVE SUMMARY

#### 1.1 INTRODUCTION

"Education is meant as the process by which character is formed, strength of mind is increased, and intellect is sharpened, as a result of which one can stand on one's feet. We need education that forges our life, generates the ideal man, imbibes noble thoughts and develops the abilities in us"- Swami Vivekananda.

Vivekanand Education Society was founded in 1959 by Shri. Hashu Advani, along with ten other members, who shared the dream of providing quality education to the youth of our country. In the beginning, Vivekanand Education Society had a very modest launch, with just 256 students and six classrooms, in the humble barracks of Chembur Camp. But today, it proudly boasts of having 3,75,000 sq. ft. land, housing 12 buildings and 28 Institutions, ranging from a creche to Ph.D. Centers. It has over 2000 teaching and non-teaching staff, and more than 18,000 students who pass through its hallowed portals each year.

Vivekanand Education Society's Institute of Technology (VESIT) was established in 1984, with the aim of providing professional education in the field of Engineering. This institute is affiliated to the University of Mumbai (UoM) and follows the rules and regulations laid down by the government, AICTE, and University. For admission 51% reserved for Sindhi Linguistic minority and 49% through centralized admission procedure. The management quota has been surrendered to DTE to make admission centralized. The institute has a total of 144 faculty, of which 36 are Ph.D. holders.

VESIT has truly been a learning institute responding to changes, setting newer standards and benchmarks for itself for **continuous improvement with two times Accreditation by National Board of Accreditation in 10 Years for all eligible UG Courses.** Further the process of accreditation has always set the roadmap and challenging milestones to cover.

VESIT has been ranked in the band of 26th - 50th in ARIIA 2019 under SELF-FINANCE/ PRIVATE INSTITUTIONS category and Platinum Category in AICTE-CII Industry-linked Technical Institute Survey 2020 & 2016. In the National Institute Ranking Framework VESIT is in the band of 251-300.

#### Vision

• To create a vibrant knowledge-oriented environment with innovative teaching practices and to inculcate a tradition of socially conscious application of technology.

#### Mission

- To inculcate a culture of value based education.
- To enthuse students to develop in an ambient environment of caring and of sharing information.

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• To enable students to work towards excellence in their chosen fields with professional bent of mind.

#### 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

#### **Institutional Strength**

- 1. Effective leadership of the members of the trust with passion towards working for excellence in education.
- 2. Constant encouragement and full-fledged support from the management.
- 3. Regular Participation in MHRD Initiatives and Hackathons.
- 4. Increased interest and effort among faculty towards research and publication in national and international journals.
- 5. Mentoring and Monitoring of the students on a regular basis.
- 6. Good ambience with well ventilated classrooms, open air amphitheater, modern hi-tech seminar halls, auditorium, modern laboratories with latest equipment, hostel accommodation, ATM banking facility, huge library, sports ground, high speed internet connectivity.
- 7. A well-equipped Learning resource center with a large collection of books and periodicals. It also has various e-learning resources and databases to support academic and research activities.
- 8. Extensively contributing towards social change in this region through Unnat Bharat Abhiyan, institutional promoted activities at ground level.
- 9. Secure campus with CCTV Camera and Security Guards.
- 10. Excellent placement.

#### **Institutional Weakness**

- 1. Hostel space is insufficient to cater to demands of students.
- 2. Deficiency in collaborative research leading to start up.
- 3. Development of projects ready for technology transfer required.
- 4. Inadequate alumni funding.
- 5. Consultancy projects required.

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#### **Institutional Opportunity**

- 1. Having an opportunity to become an Autonomous Institute enabling design of curriculum as per industry requirements in line with NEP 2020.
- 2. To strengthen Research and Development initiative towards product design and technology transfer.
- 3. Exploring more opportunities for consultancy projects.
- 4. Enhancing contributions to green initiatives.

#### **Institutional Challenge**

- 1. Availability experienced faculty with Ph.D and industrial experience.
- 2. Inviting more core companies offering higher pay packages for core placements.
- 3. Attracting GATE qualified students for PG courses.
- 4. Motivating students towards entrepreneurship.

#### 1.3 CRITERIA WISE SUMMARY

#### **Curricular Aspects**

VESIT is affiliated to University of Mumbai(UoM) and it follows the curriculum which is designed by the same. This curriculum is periodically upgraded with the latest developments in technology to meet the requirements of the industry by taking active feedback from the stakeholders such as course instructors, graduates, alumni and industry experts. VESIT prepares its own Academic Calendar in alignment with the University's calendar and strictly adheres to it. For effective planning and implementation of the curriculum, all the course instructors prepare curriculum delivery plans which are approved by the Group advisors and periodically reviewed by the Heads of the department and members of the Programme Assessment Committee.

As VESIT follows the UoM curriculum, it has limited academic flexibility. Hence it tries to achieve curriculum enrichment through its various certificate and value added courses being offered to the students. These add-on "programs help" in improving the technical and soft skills of students and to bridge the gap between the industry and academia.

Institute addresses "cross-cutting" issues like Gender, Environmental Sustainability, Human Values and Professional Ethics through various specially constituted committee activities which contribute to sensitizing students, through seminars, case studies, awareness drives and projects, in addition to addressing them through certain curricular courses "and effective teaching learning methods". All these efforts support in creating a vibrant knowledge-oriented environment.

Finally, for identifying and filling up the gaps in curriculum, the institute takes structured feedback from the stakeholders which are analyzed and corrective measures are taken for improving content delivery and content modification.

#### **Teaching-learning and Evaluation**

Institute strictly follows all the eligibility criteria, rules and regulations of admission laid down by the Directorate of Technical Education (DTE)/CET Cell, Maharashtra, Govt. of Maharashtra for admissions. VESIT surrenders institute quota seats allowed by norms and vacant minority seats to the centralized pool of admission process. All admissions are through the Centralized Admission Process. Part payment facility for fees and no capitation fee charged/levied.

Teaching learning is not limited to effective curriculum delivery but is structured through various methods. To cater to student diversity VESIT has a well-defined mechanism in place for assessing the learning levels of the students and for improving their academic performance. This includes remedial course and bridge course (need based) for slow learners and hackathons for advanced learners. Appropriate help is given to differently abled

Professional societies, skill enhancement, training and placement, research forum, co-curricular as well as extracurricular activities and faculty mentoring together ensure an effective learning ecosystem for students. Institute continuously strives to improve effectiveness in teaching, learning and evaluation process. Planning, dissemination, implementation and monitoring of various components is carried out in adherence with academic calendar. Well qualified and dedicated faculty, low alteration rate, rule based recruitment process, felicitation of teachers with long years of service contributes towards maintaining teachers quality.

Examinations are conducted as prescribed by university norms. The evaluation scheme is communicated to students through periodic orientation programmes. There is a scope for grievance redressed through mechanism of revaluation/reverification.

#### Research, Innovations and Extension

VESIT encourages and promotes research, innovation, and extension activities for students and faculty. The institute has a dedicated Research & Development (R and D) cell that combines both basic and applied research that aims at providing innovative and indigenous solutions to critical design issues in engineering systems. The R and D cell is well equipped with state of the art hardware and software resources. The institute encourages collaborative research and is a recipient of prestigious grants from the BRNS, ISRO, MCGM, AICTE, University of Mumbai (UoM) and many. Students and faculty are encouraged to publish research papers and participate in project competitions based on their project outcomes.

VESIT offers a research program leading to the Ph.D. Degree in Electronics Engineering of the UoM. The institute encourages its faculty to pursue their doctoral degree. To upgrade the knowledge of the faculty and encourage industry-academia interaction the institute organizes various AICTE funded, AICTE-ISTE approved Short Term Training Programs and Faculty Development Programs in the domains of recent trends in the technology.

The Institution's Innovation Council of VESIT, an initiative supported and guided by AICTE, has been awarded a 4.5 Golden Star Rating. VESIT-Aditya Jyot Eye Innovation Centre facilitates collaborative research on various methods to detect eye diseases using Artificial Intelligence and Image Processing. In addition to this, the institute also has various initiatives to support and facilitate research and innovation.

SoRT (Social Responsibility Team )conducts a plethora of extension activities and events including UBA (UnnatBharat Abhiyan) that bear testimony to this.

#### **Infrastructure and Learning Resources**

The institute fulfills the norms specified by the statutory bodies in terms of land requirement, instructional, administrative and various other amenities. All classrooms and laboratories are well equipped with good internet access, projectors, laptops and a public address system.

Various indoor and outdoor sports activities are conducted for the students to keep them physically agile. VESIT has a modern amphitheater where various cultural, musical and literature fests are conducted.

It has a huge library with a diverse collection of more than 49,000 text books and reference books. It also has subscribed to the Knimbus platform and subscription of eminent journals. VESIT has been using LiBSUITE, a Library Automation Software since 2010. Users can issue/return and search the books online through WEBOPAC.

VESIT has a well equipped Server Room which comprises Server, Firewall, Access Points, and Computing facilities. The Institute has 21 state of the art high configuration servers viz, 1483 computers of various manufacturers, that are connected through LAN, 108 LaserJet Printers and five Scanner and two 3D printers. It also has 60+ licensed application softwares. All staff and students are provided with "@ves.ac.in" domain for email ids through Google workspace for education(G-Suite).

The Maintenance Department of VESIT has a designated officer and six skilled staff members. It looks after activities related to building maintenance and repair-work. House keeping agency is outsourced by the institute. Firefighting drills are also conducted regularly to ensure the safety of students and staff during unavoidable emergencies.

#### **Student Support and Progression**

VESIT focuses on the holistic development by fostering a learning culture and by providing a conducive environment. To help in continuation of studies economically weak students various scholarship schemes are available. It also has a robust support of alumni who contribute to advanced learning by engaging in skill enhancement activities, giving proactive feedback for enrichment of curriculum to make the students industry ready.

Also to enhance employment opportunities for the students various sessions are conducted by TPO and experts on Presentation Skills, Goal-Setting, Resume Writing, Interviews ,Cracking Competitive exams like (TOEFL,GRE,GATE,CAT SET),Civil service exam preparation and Army Recruitment.

Special sessions are conducted in the Language Lab to hone English Communication Skills of students.

Student Groups like VESLit Circle and VESlang also conduct various events/sessions to improve the English proficiency in collaboration with prestigious groups like UBI and ToI. Yoga and Meditation sessions are also organized regularly along with counseling sessions by a sister counseling institution-VESLARC. Events like Hackathons, Praxis, E-Disha, Code Cell, Tinkerers Lab. promote the usage of ICT to polish the technical skills of students.

The Institution also has a transparent mechanism for timely redressal of student grievances / prevention of sexual harassment and ragging. Students are encouraged to take part in administrative processes to learn management skills by becoming members of bodies and councils like Cultural, Sports, Music Council, SORT, VESLit Circle, VESIT Photo circle, E-cell, DAB, VESIT-IIC, CR, VESIT-AI Club, Placement Committee, IEEE, ISA, CSI and ISTE, College Development Committee and ICC.

#### Governance, Leadership and Management

VESIT focuses on imparting value based education and holistic development of its students. The established policies and procedures in the Institute ensure the integrity and effectiveness in its governance and administration.

The Institute promotes decentralization and believes in participatory management by involving faculty in various administrative and academic activities. Perspective plans are framed with goals in adherence to Vision and Mission statements of the Institute, setting newer standards and benchmarks for making itself a center of excellence.

VESIT nurtures open and healthy communication between its employees that results in a free, fair ,transparent and conducive work environment. Several welfare schemes are in place for the benefit of teaching and non teaching staff. The Institute encourages the entire workforce to upgrade their technical and soft skills which is evident through their performance appraisal form.

Being a self-financed organization, the Institute has laid down processes for effective utilization of financial resources and conducts internal and external financial audits annually.

Since inception, the institute has been applying innovative plans to create a vibrant knowledge-oriented environment. These plans are executed and evaluated through different committees to ensure quality measures at the institute.

Internal Quality Assurance Cell(IQAC) is established by the Institute and has initiated several quality reforms for academic and administrative excellence. IQAC focuses on improving its teaching-learning processes, brand building, research and innovations, infrastructure and academic developments to ensure the quality culture at VESIT.

#### **Institutional Values and Best Practices**

#### **Institutional Values and Social Responsibilities:**

VESIT gets it's values from the great Hindu spiritual leader Vivekananda. We are working towards attaining the Sustainable Development Goals set by the United Nations. VESIT provides a **safe atmosphere for both** 

**genders** by having mandatory committees and organizing regular awareness programs, separate washrooms and common rooms for both genders and a creche.

Conscious of its environmental and societal obligations, VESIT has taken active steps towards achieving these objectives by replacing tube-lights with LED bulbs, Solid, Liquid, E-Waste, Hazard's chemicals waste managements, Waste water recycling system, Rainwater harvesting, maintenance of water bodies and distribution in the campus. Green campus initiatives like restricted entry of automobiles, ban on use of plastic, landscaping with trees and plants and Energy audits, beyond campus environmental promotion activities are carried out enthusiastically. For differently-abled students and staff, lift, ramp barrier free access to toilets, restrooms are available.

**Inclusivity** is practiced by celebrating festivals of different religions, regions and linguistics with equal vigor. Staff and students are periodically sensitized towards their constitutional obligations and are encouraged to exercise the right to vote.

In the last 37 years VESIT has identified and adopted many **best practices**, two of which are Looking beyond Syllabus and Campus to Corporate.

By providing a conducive atmosphere for holistic development and education, VESIT is known for creating highly competent technocrats with social consciousness which is the most **Distinctive feature** which makes our institute **a leader in technical education**.

#### 2. PROFILE

#### 2.1 BASIC INFORMATION

Name and Address of the College		
Name	VIVEKANAND EDUCATION SOCIETY'S INSTITUTE OF TECHNOLOGY	
Address	Hashu Advani Memorial Complex, Collectors Colony, R. C. Marg, Chembur	
City	Mumbai	
State	Maharashtra	
Pin	400074	
Website	https://vesit.ves.ac.in	

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Jayalekshmi M. Nair	022-61532532	9224525733	022-6153255 5	naacadmin.vesit@ ves.ac.in
IQAC / CIQA coordinator	M. Vijayalakshm i	022-61532505	9820882766	022-	m.vijayalakshmi@ ves.ac.in

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution		
By Gender	Co-education	
By Shift	Regular	

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Recognized Minority institution			
If it is a recognized minroity institution  Yes  Minority letter translated from Marathi to English  .pdf			
If Yes, Specify minority status			
Religious			
Linguistic	Sindhi		
Any Other			

<b>Establishment Details</b>	
Date of establishment of the college	13-08-1984

college)				
State	University name	Document		
Maharashtra	University of Mumbai	View Document		

University to which the college is affiliated/ or which governs the college (if it is a constituent

Details of UGC recognition			
<b>Under Section</b>	Date	View Document	
2f of UGC	08-02-2019	View Document	
12B of UGC	08-02-2019	View Document	

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	Recognition/App roval details Inst itution/Departme nt programme	Day,Month and year(dd-mm- yyyy)	Validity in months	Remarks
AICTE	View Document	25-06-2021	12	For Academic Year

Details of autonomy	
Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	No

Recognitions		
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No	
Is the College recognized for its performance by any other governmental agency?	No	

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Hashu Advani Memorial Complex, Collectors Colony, R. C. Marg, Chembur	Urban	3	19299.2

#### 2.2 ACADEMIC INFORMATION

Details of Pro	ogrammes Offe	ered by the Col	lege (Give Data	a for Current	Academic year	)
Programme Level	Name of Pr ogramme/C ourse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Electroni cs Engineering	48	XII JEE MHTCET EXAM DIPLOMA	English	60	53
UG	BE,Compute r Engineering	48	XII JEE MHTCET EXAM DIPLOMA	English	180	180
UG	BE,Instrume ntation Engineering	48	XII JEE MHTCET EXAM DIPLOMA	English	60	32
UG	BE,Electroni	48	XII JEE	English	120	115

	cs And Telec ommunicatio ns Engineering		MHTCET EXAM DIPLOMA			
UG	BE,Informati on Technology	48	XII JEE MHTCET EXAM DIPLOMA	English	120	120
UG	BE,Artificial Intelligence And Data Science	48	XII JEE MHTCET EXAM DIPLOMA	English	60	60
PG	ME,Instrume ntation Engineering	24	BE AND GATE EXAM	English	18	0
PG	ME,Electron ics And Tele communicati ons Engineering	24	BE AND GATE EXAM	English	18	1
PG	ME,Informat ion Technology	24	BE AND GATE EXAM	English	18	2
PG	MCA,Master Of Computer Applications	24	ANY GRADUAT E DEGREE AND MHTCET EXAM	English	120	120
Doctoral (Ph.D)	PhD or DPhi 1,Electronics Engineering	36	BE IN ELEC TRONICS AND ALLIED BRANCHES	English	12	0

Position Details of Faculty & Staff in the College

	Teaching Faculty											
	Profe	Professor			Asso	Associate Professor			Assis	Assistant Professor		
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				14				32				124
Recruited	3	6	0	9	6	16	0	22	29	80	0	109
Yet to Recruit				5				10				15
Sanctioned by the Management/Soci ety or Other Authorized Bodies				14				32	J			124
Recruited	3	6	0	9	6	16	0	22	29	80	0	109
Yet to Recruit				5		1		10				15

	Non-Teaching Staff								
	Male	Female	Others	Total					
Sanctioned by the UGC /University State Government	7	7,		65					
Recruited	40	25	0	65					
Yet to Recruit				0					
Sanctioned by the Management/Society or Other Authorized Bodies				65					
Recruited	40	25	0	65					
Yet to Recruit				0					

	Technical Staff								
	Male	Female	Others	Total					
Sanctioned by the UGC /University State Government				32					
Recruited	14	18	0	32					
Yet to Recruit				0					
Sanctioned by the Management/Society or Other Authorized Bodies				32					
Recruited	14	18	0	32					
Yet to Recruit				0					

#### **Qualification Details of the Teaching Staff**

	Permanent Teachers									
Highest Qualificatio n	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	2	6	0	5	5	0	4	12	0	34
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	1	11	0	23	56	0	91

	Temporary Teachers										
Highest Qualificatio n	Professor		Associate Professor			Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0	
Ph.D.	1	0	0	0	0	0	1	2	0	4	
M.Phil.	0	0	0	0	0	0	0	0	0	0	
PG	0	0	0	0	0	0	1	10	0	11	

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

Details of Visting/Guest Faculties						
Number of Visiting/Guest Faculty	Male	Female	Others	Total		
engaged with the college?	0	0	0	0		

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
Doctoral (Ph.D)	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0
PG	Male	24	2	0	0	26
	Female	125	4	0	0	129
	Others	0	0	0	0	0
UG	Male	1751	10	0	0	1761
	Female	845	2	0	0	847
	Others	0	0	0	0	0

### Provide the Following Details of Students admitted to the College During the last four Academic Years

Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
ST	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
General	Male	410	420	374	371
	Female	201	203	237	204
	Others	0	0	0	0
Others	Male	94	155	204	197
	Female	66	90	68	108
	Others	0	0	0	0
Total		771	868	883	880

#### **Institutional preparedness for NEP**

1. Multidisciplinary/interdisciplinary:

VESIT is committed to provide its students a multidisciplinary engineering education and also provide its faculty forum for a broader spectrum of growth. In past few years some of the endeavors and opportunities provided to students showcase this commitment. 1) Courses: a) AI for Healthcare - In pursuit of innovation for Atma-Nirbhar-Bharat using the promising technologies (VESIT and VES College of Pharmacy) b) ISRO-IIRS Outreach Programme: Training programs in field of Remote Sensing, Geoinformatics and GPS, Technology for Natural Resources, Environmental and Disaster Management (Free of Cost) 2) Projects/ Startups: a) VESIT Aditya Jyot Eye Innovation Centre. b) Calibration System

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for Nuclear Spectroscopy Applications -(Instrumentation and IT) - c) Air purification with Aromatherapy "Product Development with VES Pharmacy College under incubation Activity d) Looking Beyond Syllabus Program e) Detection of Adverse Drug Reactions using Vaccine Safety Data In association with Cerelabs - (Interdisciplinary) f) Artificial Intelligence Model For Epidemiology Of Tuberculosis -(Interdisciplinary) g) VESIT-IT Swetchha ITeS based solution for Operation and Maintenance of the Community Toilet Blocks for Slums of Mumbai. h) "Industry proctored project" under B&R Industrial Automation Pvt. Ltd. i) "Netzero Energy efficient building design", for Solar Decathlon and Architecture college. j) "Electromyography based Gesture recognition" project in collaborative mentoring with the Department of Biosciences and Bioengineering, IIT-Bombay. 3) STTPS for faculty: a) Green IOT" ( Electronics and Telecommunication, Computers, IT and MCA)- ATAL b) E-Vehicle course (Electronics, Electronics and Telecommunication and Instrumentation c) Blockchain and Its Applications (IT, CMPN and MCA)- ATAL One week AICTE sponsored Online STTP on Statistics High Performance Computing For Deep Learning. d) AICTE-ISTE approved Short Term Training Program on "Biology For Engineers" 2. Academic bank of credits (ABC): VESIT is under the aegis of Mumbai university and thus follows the choice based system of Mumbai University. At this point of time Academic Bank of Credit (ABC) is not applicable. VESIT has a ready roadmap to moving towards Autonomy and would be including ABC. 3. Skill development: Skill Development is the process of identification of the skill gaps. VESIT tries to bridge this gap by providing skilling training & employment benefits to students by offering following avenues: 1) Add On Courses: a) Coursera b) Oracle Certification c) VESIT-Dlink Campus Connect Programme d) VESIT NI LabVIEW Academy 2) Industry Intensive Courses: a) Cloudera Academic Partnership (CAP) b) ATS Microsoft Certifications c) VESIT AIA Integration 3) Value Added Courses: a) Swayam VESIT NPTEL courses b) Spoken Tutorials 4) Capacity Building and Skill Enhancement: a) Soft Skill b) Language and Communication c) Life Skills

	d) ICT/ Computing e) Skill Enhancement Lecture (Co-curricular) 5) VESIT GATE Tutoring: a) Digital Circuits b) Control Systems c) Communications 6) Advance Training: a) IoT b) Electric Vehicle (MATLAB)
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	VESIT engages faculty and students with local communities to abreast students with real world problems and find solutions. Function in collaborative, inclusive way and creating citizens by engaging students in societal and national issues. a) VESIT has been actively participating in EK Bharat Shreshtha Bharat(EBSB) and Conducted activities in creating awareness about Indian culture and Yoga in collaboration with partner institute IMI and State ODISHA. Weblink: https://vesit.ves.ac.in/EBSB b) Universal Human Value Almost 65 faculty have attended AICTE- UHV courses and are engaged with students. Induction Program conducted in the First Year itself has UHV awareness modules. Weblink: https://vesit.ves.ac.in/mhrd/uhv#committee c) Participating in NEP programs VESIT faculty have been encouraged to participate in completion of actionable points from NEP 2020 initiated by the Directorate of Technical Education to create awareness and start thinking on the implementation of NEP in institute.
5. Focus on Outcome based education (OBE):	Four departments of VESIT namely-Electronics, Electronics and Telecommunication, Instrumentation and Information Technology are Re-accredited in 2019 and Computer Engineering accredited in 2016 by National Board of Accreditation (NBA) which assesses Outcome based education. Earlier, in 2006, the eligible programs of VESIT were accredited by NBA on output based education.
6. Distance education/online education:	1) VES Online Academy-(Proposed): VESIT faculty member are offering online courses on: Web designing (HTML + CSS) NI LabVIEW Python Programming C++ Programming For high-school students. 2) MOOC Courses Collaboration: We at VESIT encourage our own students to take advantages of MOOC courses to ensure that students have access to courses offered by professors at the top schools and learners' performance can be monitored easily. a) Coursera (approximately registration 2267 for 352 free courses): Coursera.org offers massive open online courses (MOOC),

specializations, degrees, professional and master track courses. In its 'Coronavirus Response Initiative' program Coursera offered a lot of free courses to students and faculty members from all the interested Universities and other academic Institutes. VESIT enrolled for the program looking at the benefits which the students may avail from this program. Weblink: https://vesit.ves.ac.in/additional\_courses/co ursera#overview b) Swayam VESIT NPTEL courses: NPTEL is the largest provider of MOOCs in India today, especially the Engineering stream, with a credible proctored certification exam that clearly qualifies and differentiates the learners who do these courses. NPTEL offers self-study free courses across various disciplines, including a well-designed evaluation system in the form of assignments on a regular interval and optionally a certified exam at the end of the course, with a nominal fee. The courses are offered by the faculty of IITs, CMI, IMSc, etc. Weblink: https://vesit.ves.ac.in/additional\_courses/np tel#overview c) Spoken Tutorials: The Spoken Tutorial project is the initiative of the "Talk to a Teacher" project of the National Mission on Education through Information and Communication Technology, launched by the Ministry of Education (previously MHRD), Govt of India. Here you will find a variety of tutorials on various Free and Open Source Software (FOSS) in several Indian regional languages. Weblink: https://vesit.ves.ac.in/additional \_courses/spoken-tutorial#overview

#### **Extended Profile**

#### 1 Program

#### 1.1

#### Number of courses offered by the Institution across all programs during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
401	385	376	357	347

File Description	Document
Institutional data prescribed format	<u>View Document</u>

#### 1.2

#### Number of programs offered year-wise for last five years

2020-21	2019-20	2018-19	2017-18	2016-17
10	9	9	9	9

#### 2 Students

#### 2.1

#### Number of students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
2979	2946	3113	3127	3153

File Description	Document
Institutional data in prescribed format	View Document

#### 2.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
432	428	456	456	456

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

#### 2.3

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

827	818	877	860	845	
2020-21	2019-20	2018-19	2017-18	2016-17	

File Description	Document
Institutional data in prescribed format	View Document

#### 3 Teachers

#### 3.1

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

2020-21	2019-20	2018-19	2017-18	2016-17
140	144	154	183	189

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

#### 3.2

#### Number of sanctioned posts year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
170	171	144	144	189

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

#### **4 Institution**

#### 4.1

#### Total number of classrooms and seminar halls

Response: 40

#### 4.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
651.80	730.37	737.48	742.05	537.57

#### 4.3

**Number of Computers** 

Response: 1228

#### 4. Quality Indicator Framework(QIF)

#### **Criterion 1 - Curricular Aspects**

#### 1.1 Curricular Planning and Implementation

## 1.1.1 The Institution ensures effective curriculum delivery through a well planned and documented process

#### **Response:**

The Institution has a well-structured curriculum delivery plan.

- 1. For effective planning and implementation of curriculum,
  - Preparation of Academic Calendar
  - Preparation of Lesson & Lab Plans
  - Preparation of Time-table
- 2. For effective curriculum delivery and monitoring
  - Faculty / Group Advisors
  - HoD and DHoD
  - Program Assessment Committee (PAC)
  - Department Advisory Board (DAB)

#### **Preparation of Academic Calendar:**

The Institute prepares its own Academic Calendar semester-wise in alignment with the University's academic calendar. The Academic Calendar includes a schedule for all the course conduction and examrelated activities. It also includes a schedule for all the co-curricular and extra-curricular activities.

#### **Preparation of Lesson and Lab Plans:**

To ensure efficient delivery of curriculum, course instructors prepare lecture and lab plans of the courses to be conducted semester-wise, which is approved by Group advisors of the institute.

#### Preparation and monitoring of Time-table:

A Timetable is centrally prepared by the timetable committee, in accordance with the Academic Calendar of the institute and syllabus of Mumbai University. The timetable is followed by the individual departments and its execution is monitored by the department-in-charges, for effective curriculum delivery. Also, in case of the absence of faculty, alternate arrangements are made by the faculty or department-in-charges for the smooth conduction of lectures.

#### **Faculty/Group Advisors:**

All the courses have been classified into various domains as subject groups which are assigned to and monitored by group advisors. The Academic coordinator of the institute classifies different subject groups. There are 50 such groups. Group Advisors periodically conduct meetings with course instructors for

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appropriate content delivery of their course, using proper tools and techniques.

#### HoD and DHod

In addition to the above, the administrative and academic activities of each department are jointly supervised by the HoD and DHoD of the department, Periodic feedbacks are taken by them, for effective curriculum delivery.

#### **Program Assessment Committee (PAC)**

Emphasizing the significance of constructive feedback, continuous assessment of content delivery is done during the semester by the PAC. PAC consisting of HoD, D-HoD and senior faculty members, evaluate and validate the academic preparedness and give suggestions for improving the course content, based on the results and course outcome attainments.

#### Advisory Board (AB)

The Institute has an Advisory board at the department and Institute level.

#### **Department Advisory Board (DAB):**

Gaps in the curriculum are further identified through structured feedback from the stakeholders who form a part of the DAB. DAB consists of HoD, D-HoD, senior faculty members and stakeholders from industry, alumni and students who give their valuable suggestions for appropriate actions to be taken. These actions include strengthening the content delivery such as skill enhancement lectures (SEL), industrial visits (IV), mini-projects, procurement of the latest software and hardware which help in strengthening the curriculum delivery planning. The suggestions given by PAC and DAB are implemented through the teaching-learning process of the department.

#### **Institute Advisory Board (IAB):**

Suggestions of DAB are presented to IAB composed of members of management, industry captains and some special invitees.

File Description	Document	
Upload Additional information	<u>View Document</u>	
Link for Additional information	View Document	

#### 1.1.2 The institution adheres to the academic calendar including for the conduct of CIE

#### **Response:**

The academic calendar includes the dates of commencement and end of even and odd terms, internal assessment, practical, viva-voce and end semester examinations. All the course instructors prepare lesson and lab plans to ensure completion of prescribed portions of the syllabus before the internal assessment tests and end semester examinations, according to the academic calendar and guidelines provided by the University of Mumbai.

The Academic Calendar is disseminated on the department notice boards and college website for preparing the students for continuous internal evaluation. It helps in preparing an action plan for smooth conduction of continuous internal evaluation(CIE) at two levels:

- a) Institution Level
- b) University Level
- a) Institution Level: The institute conducts two internal assessment tests 1 and 2 the Internal Assessment Test-I (IA-1) based on a 40% syllabus of the subjects. Second Internal Assessment test IA-2, based on remaining portion covered, for all the courses in U.G. and P.G. programmes based on the schedule shared by the Academic Coordinator in consultation with the Controller of Examination of the Institute. A third test is conducted for the students who have missed either or both the tests as per the rules of the University of Mumbai. The timetable for these internal assessment tests is prepared by the department exam committee under the guidance of the respective Head of the Department. The same is intimated to the students via emails and also displayed on the department notice board. Submission dates of journals, mock viva, etc. are also reflected in the academic calendar.
- **b)** University Level: The institute also conducts orals, practicals, term work and end semester exams under the over looking of Controller of Examination of the Institution, in accordance with the schedule given in the Academic Calendar.

For all tests and examinations, extra time is provided to students who have learning disabilities in accordance with the guidelines of Mumbai University.

Note: During the pandemic period, according to the guidelines suggested by the University of Mumbai, the notifications for all the above mentioned continuous internal evaluation activities including mock tests are being intimated to the students through emails and conducted using Google Meet platform.

File Description	Document	
Upload Additional information	<u>View Document</u>	
Link for Additional information	View Document	

- 1.1.3 Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the last five years
  - 1. Academic council/BoS of Affiliating university

- 2. Setting of question papers for UG/PG programs
- 3. Design and Development of Curriculum for Add on/certificate/ Diploma Courses
- 4. Assessment /evaluation process of the affiliating University

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

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Details of participation of teachers in various bodies/activities provided as a response to the metric	View Document
Any additional information	View Document
Link for Additional information	View Document

#### 1.2 Academic Flexibility

## 1.2.1 Percentage of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented

Response: 100

#### 1.2.1.1 Number of Programmes in which CBCS / Elective course system implemented.

Response: 10

File Description	Document
Minutes of relevant Academic Council/ BOS meetings	View Document
Institutional data in prescribed format	<u>View Document</u>
Link for Additional information	View Document

#### 1.2.2 Number of Add on /Certificate programs offered during the last five years

**Response:** 567

#### 1.2.2.1 How many Add on /Certificate programs are offered within the last 5 years.

2020-21	2019-20	2018-19	2017-18	2016-17
406	66	60	22	13

File Description	Document
List of Add on /Certificate programs	<u>View Document</u>
Brochure or any other document relating to Add on /Certificate programs	View Document
Any additional information	View Document
Link for Additional information	View Document

## 1.2.3 Average percentage of students enrolled in Certificate/ Add-on programs as against the total number of students during the last five years

Response: 61.15

## 1.2.3.1 Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
2699	2390	2266	1293	627

File Description	Document
Details of the students enrolled in Subjects related to certificate/Add-on programs	View Document
Any additional information	<u>View Document</u>

#### 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 Institute addresses cross-cutting issues like Gender, Environmental Sustainability, Human Values and Professional Ethics through the curriculum and activities of committees constituted for addressing these issues.

The Curriculum addresses the cross-cutting issues through various courses in various semesters as listed below.

#### 1. Gender:

• Entrepreneurship Development and Management (Sem-VIII) focuses on Women's

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#### Entrepreneurship Development

#### 2. Environmental Sustainability-

- Environmental Studies (Sem-I) covers the environmental aspects such as Ecosystem, Sustainable Development, Pollution Control Legislation, Renewable Sources of Energy and Technological Advances to overcome Environmental problems.
- Environmental Management (Sem-VIII) covers Environment Quality Management and Corporate Environmental Responsibility. It also gives an overview of major legislation like the Environment Protection Act.
- Project and Mini Project- Many Projects and Mini Projects promoting Environmental Sustainability are carried out such as - Water Treatment and Purification using Renewable Resources, Water consumption monitoring system, Predictive analysis of carbon footprint in metropolitan cities of India.

#### 3. Human Values and Professional Ethics-

- Professional Communication and Ethics- I (Sem-II) helps students in personality development and social etiquette. It also enhances reading and writing skills.
- Communication Skills (Sem-II) teaches students communication techniques, improves grammar and vocabulary, and technical writing skills.
- Business Communication and Ethics (Sem-V) improves the skill of technical report writing, interpersonal skills and soft skills
- Entrepreneurship Development and Management (Sem-VIII) is useful for business development and effective management of business. It gives information about the Indian environment for developing entrepreneurship skills.
- Research Methodology (Sem-VIII) focuses on the need for research in business and social sciences.
- Finance Management (Sem-VIII) gives knowledge about Financial Markets, Corporate Finance and Financial Ratio Analysis.

In addition to the curricular courses, our Institute has various statutory and non-statutory bodies which contribute to sensitizing students towards cross-cutting issues, through activities, samples of which are given below-

#### 1. Gender-

• Women Development Cell (WDC) - WDC organizes seminars on Women in Data Science,

Financial Awareness for Women and Managing Personal Finance.

#### 2. Environmental Sustainability-

- Social Responsibility Team (SORT) The Institute is proactive in sensitizing students towards environmental issues through SORT activities like Dustbin Awareness drive, Traffic Monitoring, Swachh Bharat Abhiyan, Blood Donation Camp, Tree Plantation.
- VESIT Unnat Bharat Abhiyan (UBA) VESIT UBA committee (12 faculty members and 40 Students) visited five villages for discussions and for village survey and household surveys for preparing an action plan.

#### 3. Human Values-

 VES Leadership Academy and Research Centre (VESLARC) - organizes workshops for students in two categories: external world skills and Inner World Values, which include Effective public speaking, Confidence and Body Language.

#### 4. Professional Ethics-

- Training and placement cell organizes pre-placement training activities like mock HR sessions, IT for Non-IT programs.
- Entrepreneurship-Cell organizes sessions like 'Wantrepreneur seminar', 'Build Your App', 'Entrepreneurship & Converting Dreams to Reality' to provide insight into entrepreneurship and the struggle of entrepreneurs in the initial phase.
- VESIT Indian Society For Technical Education (ISTE) & Institute of Electrical and Electronics Engineers (IEEE)- The professional societies of VESIT student chapter conducts many events throughout the year, such as 'GRE Workshop', 'Technical Debate', 'AI/ML workshop', 'Android Workshop'.

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

## 1.3.2 Average percentage of courses that include experiential learning through project work/field work/internship during last five years

**Response:** 87.82

#### 1.3.2.1 Number of courses that include experiential learning through project work/field

#### work/internship year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
353	343	337	319	288

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any Average percentage of courses that include experiential learning through project work/field work/internship	View Document

## 1.3.3 Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year

Response: 100

#### 1.3.3.1 Number of students undertaking project work/field work / internships

Response: 2979

File Description	Document
List of programmes and number of students undertaking project work/field work//internships	View Document
Any additional information	View Document

#### 1.4 Feedback System

## 1.4.1 Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders 1) Students 2) Teachers 3) Employers 4) Alumni

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

File Description	Document
Any additional information (Upload)	<u>View Document</u>
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	View Document
URL for stakeholder feedback report	View Document

#### 1.4.2 Feedback process of the Institution may be classified as follows: Options:

- 1. Feedback collected, analysed and action taken and feedback available on website
- 2. Feedback collected, analysed and action has been taken
- 3. Feedback collected and analysed
- 4. Feedback collected
- 5. Feedback not collected

**Response:** B. Feedback collected, analysed and action has been taken

File Description	Document	
Upload any additional information	<u>View Document</u>	
URL for feedback report	View Document	

#### **Criterion 2 - Teaching-learning and Evaluation**

#### 2.1 Student Enrollment and Profile

#### 2.1.1 Average Enrolment percentage (Average of last five years)

Response: 94.77

#### 2.1.1.1 Number of students admitted year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
800	744	835	855	851

#### 2.1.1.2 Number of sanctioned seats year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
834	828	882	882	882

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Any additional information	View Document

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

Response: 51.86

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

2020-21	2019-20	2018-19	2017-18	2016-17
179	160	245	272	306

File Description	Document
Average percentage of seats filled against seats reserved	View Document
Any additional information	View Document

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#### 2.2 Catering to Student Diversity

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

#### **Response:**

VESIT categorizes the students and helps them to deal with the current requirements of the education system. While teaching, teachers have to deal with the students having different learning abilities. Some students are able to perform above average in the class while some perform below. The former can be categorized under advanced learners and later under slow learners. Teachers take extra efforts to help the slow learners to reach up to the mark and try to enhance the capabilities of advanced learners by pushing and motivating them towards the competition or extra courses justifying their level.

Rubrics for categorization:-

#### By Academic:-

- HSC Percentage + Best of CET & JEE percentile
- Examination Results
- Active participation in academics
- Response in classroom
- Communication skills
- Antecedents

#### By Medical Condition:-

• Learning disability certificate

In the first year, the students with low scores in HSC/CET and students with a learning disability can be directly categorized under slow learners. Then teachers categorize them from the academic examination's results, active participation in the classroom discussion, or any class/academic activities. Mentors conduct frequent meetings with the students and understand their antecedents and guide them accordingly.

After identification, VESIT grooms the slow learners and tries to enhance the performance of advanced learners in all respects.

#### **Activities for Advanced Learners:**

- Smart India Hackathon (SIH)
- Awakening the Scientists (ATS)
- Automation Industries Association Course (AIA)
- Certification Courses
- Tinkerer's Lab Activities
- Virtual Lab
- Workshops for students

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- Looking Beyond Syllabus (LBS)
- Paper presentations
- Skill enhancement lectures (SEL)
- E-yantra (Project competition)
- Massive Open Online Courses (NPTEL, Coursera)
- Technology Day
- Language Lab Competitions
- Exclusive Scholar Programme

Advanced learners are encouraged to participate in the above activities either to apply their knowledge or gain it. The activities are designed in such a way that their innovative skills, presentation skills, practical approach, and out-of-the-box thinking get boosted which helps their overall development.

#### **Activities for Slow Learners:**

- Mentoring Sessions
- Remedial Lectures
- Individual Counselling
- Finishing School
- Bridge Courses
- Inclusive Project Group Formation
- Skill enhancement lectures
- Technology Day
- Language Lab Sessions
- 33% (approximately) extra time in examination (Disabled Students)
- Extracurricular activities as Sports, Dance etc

Teachers pay more attention to the problems and academic difficulties faced by the slow learners and try to overcome those. For slow learners, remedial lectures and doubt solving sessions are conducted in which less understood concepts and doubts are discussed. Prerequisites for different subjects are covered under Finishing school activity. Bridge courses help conceptually lagging behind students. Students with weak communication skills are trained by conducting extra Language Lab sessions. VESIT has the tradition of creating mixed levels of students for the project groups. The slow learners are encouraged to take part in extracurricular activities, also activities conducted for the advanced learners to explore more along with the activities meant for them.

Thus, slow learners are able to cope up with the current academic requirements and perform well in the forthcoming academic challenges. Similarly , the advanced learners are encouraged to interact, compete, develop and exhibit innovative ideas and skills.

File Description	Document	
Upload any additional information	View Document	
Past link for additional Information	View Document	

# 2.2.2 Student- Full time teacher ratio (Data for the latest completed academic year) Response: 21:1 File Description Document Any additional information View Document

#### 2.3 Teaching-Learning Process

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

#### **Response:**

As a student centric approach our Institute believes in effective teaching in the overall development of students' knowledge, skills, concepts and process. VESIT established effective teaching learning through allocation of subjects prior to the commencement of the academic year. Schedule of all of the events that occur in an academic year is prepared through the academic calendar at the beginning of each semester and communicated to all the faculty members and students. To plan curriculum delivery effectively, to identify the need for further enhancement and to accomplish the course outcomes regular subject teacher meetings are conducted by the respective group advisors.

VESIT adopts following student centric methods to facilitate student-empowered learning to meet their learning goals, guidance for student's decision-making and skills building to achieve their academic success with required competencies. Methods such as experiential learning, participative learning and problem solving are used at various stages to enhance skill-based learning to the students.

#### **Experiential learning**

Experiential learning process is an engaged learning process in which students gain knowledge through the transformation of experience. Our institution promotes various experiential learning-based activities which enhances the knowledge of learners through application.

- Students implement their theoretically learned knowledge during the practical sessions
- Participating in various technical workshops, seminars, conferences to enhance their knowledge and acquire skills
- Industrial Visits
- Industry / Institute Internship
- Tinkerer's Lab activities

• Exclusive Scholar Program (ESP)

#### Participative learning

Participative learning methods are focused on encouraging students to engage in a common task where they are accountable to one another in their learning process. It provides a way of solving some of the problems encountered with other approaches. Institute encourage students to involve in more practical activities by providing various strategies and techniques that includes,

- Technical Paper Publication
- Looking beyond syllabus (LBS)
- Industry Institute interaction event (Tech connect event)
- Process Oriented Guided Inquiry learning (POGIL)
- Awakening the Scientist program

#### **Problem-solving methodologies**

In a problem-solving method, students learn new knowledge by facing the problems to be solved. The students are expected to observe, understand, analyse, interpret, find solutions, and perform applications that lead to a holistic understanding of the concept. This method develops student's critical thinking to come out with alternatives in practical situations and scientific process skills in the students. Problem -Solving Methodologies followed in Institution include approaches such as,

- Institute Technical annual event (PRAXIS)
- Project Competitions and project exhibitions
- Industry Projects
- Research grant projects

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

#### 2.3.2 Teachers use ICT enabled tools for effective teaching-learning process.

#### **Response:**

Information and Communication Technology (ICT) tools can be used to find, explore, analyse, exchange and present information responsibly. The Institute follows intensive use of ICT enabled tools including online resources for effective teaching and learning process in addition to the traditional classroom education. Use of ICT tools in the classroom and laboratory for better understanding of the concepts and problem-solving is adopted by the faculty of the institution to make the teaching-learning more effective, efficient and engaging

The institution has the latest computers with 100 Mbps speed of internet facility in all departments and general ICT for the faculty and students. In our institute, 37 classrooms and 3 smart classrooms are provided with LCD projector, system with internet connection, whiteboard and PA system. This makes learning more interactive, interesting and easy to understand. The students are also encouraged to use ICT tools in their presentations, group discussions, seminars which include application oriented and curriculum beyond topics.

The Language Lab is set up in the Institute to improve the communication skills of the students through the use of various innovative techniques and strategies while using the advanced software available in the lab. This program enables the students to have computer assisted teaching where they learn the language at their own pace and time. The program assists them to learn the correct pronunciation, intonation and pitch. This, in turn, definitely improves the student's professional skills and overall persona thus endowing him with an edge over others to hold on to prime positions in this competitive world.

To take the best teaching learning resources to all the Institute has adapted the SWAYAM-NPTEL local chapter programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. Faculty and students are encouraged to enrol for various NPTEL courses through which the learner gets an opportunity to earn a certificate from the IITs. In addition to this, the Institute is also offering an opportunity to faculty and students to enrol for free Coursera courses which ensures flexible, affordable, job-relevant online learning to individuals and organizations worldwide. The central library of the institute provides Knimbus platform to access the e-resources of the Institute, e-books can be accessed under Springer Nature loyalty program and also provides Pearson e-Library facility to faculty and students.

In order to increase the programming knowledge and showcase the projects of students, VESIT in association with GitHub conducts training on the usage of GitHub as a remote repository to your local projects and its interface for open-source contributions.

To make teaching learning process very convenient, interactive, to boost productivity, for fast and flexible communication, Institute has provided G-Suite facility to all the faculty and students which can be used to conduct online lectures through Google meet, sharing course material like course lecture notes, assignment topics, course schedules etc. between teachers and students through Google Classroom.

File Description	Document
Upload any additional information	<u>View Document</u>
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	View Document

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

Response: 28:1

2.3.3.1 Number of mentors

Response: 106

File Description	Document	
Upload year wise, number of students enrolled and full time teachers on roll.	View Document	
mentor/mentee ratio	View Document	
Circulars pertaining to assigning mentors to mentees	View Document	

### 2.4 Teacher Profile and Quality

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

**Response:** 100.12

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

2.4.2 Average percentage of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)

Response: 18.36

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

2020-21	2019-20	2018-19	2017-18	2016-17
39	31	28	24	21

File Description	Document
List of number of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. and number of full time teachers for 5 years (Data Template)	View Document
Any additional information	View Document

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

Response: 12.75

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

Response: 1785

File Description	Document
List of Teachers including their PAN, designation, dept and experience details(Data Template)	View Document
Any additional information	<u>View Document</u>

#### 2.5 Evaluation Process and Reforms

#### 2.5.1 Mechanism of internal assessment is transparent and robust in terms of frequency and mode

#### **Response:**

As per the Choice Based Credit and Grading System(CBCGS) of University of Mumbai, two internal assessment(IA) Tests and term work are the part of internal evaluation per semester. To ensure transparency and robustness of internal evaluation, the institute follows procedures as described below:

#### 1. Mechanism for Transparent Internal Assessment Tests

**1.1 Intimation through Academic Calendar for Test Dates:** At the start of the semester the rubrics used for the assessment are shared with the students. The schedule of internal examination is made available to the students through Academic Calendar in online mode. In order to ensure proper coverage of the syllabus for the test, the first and second internal tests are conducted approximately on the 7th and 15th week of the semester; which will be mentioned precisely in the academic calendar.

- **1.2 Question Paper mapping with Course Outcomes and Bloom's Taxonomy:** Each subject faculty designs internal test question papers as per COs of the subject and various Cognitive learning levels mentioned in the Bloom's Taxonomy for online/offline tests.
- 1.3 Distribution of evaluated answer sheets, sample solutions and marks display: Academic calendar mentions the date for the internal test paper correction completion. Evaluated answer sheets are distributed to the students and they can self-evaluate their performance by verifying with the sample solutions provided. The marks obtained in each IA are displayed to students through Google classrooms/classrooms.

### 2. Mechanism for Transparent Term Work Assessment

- **2.1 Lab Plan mapped with CO-PO-PSO:** Lab experiment lists are prepared at the semester beginning with mapping to CO-PO-PSO and are displayed in the lab notice board/ Google Classroom along with the rubrics of evaluation.
- **2.2 Per Week Lab Work evaluation:** Practical submissions are evaluated per experiment per student basis. Practical is graded per week .Each experiment is graded with respect to the performance and date of submission Individual Practical's grades are averaged to calculate per semester grade of the student for the respective lab performance.
- **2.3 Project Evaluation:** Mini projects related to subjects are separately evaluated and marks are awarded. Final year projects are evaluated as different phases. Reviews are conducted and each review shows the milestone achieved by the student in terms of project progress.

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

## 2.5.2 Mechanism to deal with internal/external examination related grievances is transparent, time-bound and efficient

#### **Response:**

Institute follows the ordinance of University of Mumbai to deal with examination related grievances. Internal assessment related grievances are normally addressed by the respective Department Heads, Deputy Head of Department along with Department Exam in Charges. End of semester exam related grievances are handled by the institute exam cell as per university guidelines. Examinee is permitted to apply for internal assessment revaluation.

**For the exams conducted by the university,** for the theory papers, the students are permitted to take the photocopy of the assessed answer book. As per the order by the University of Mumbai, taking a photocopy of the answer book is not a prerequisite for revaluation.

If the examinee is not satisfied with the marks awarded, he/she may independently apply for revaluation to the university through College in the prescribed form within the period and as the manner prescribed.

A candidate can apply for the revaluation of the answer book of the subject only if he/she secured at least 20% of the total marks in the subject or 40% of the marks required for the passing in the said subject, whichever is less or the grade equivalent to the above criteria where grades are assigned to the theory papers.

College will receive the applications and will forward the list of applications for the revaluations with forms and documents to Controller of Examination, University of Mumbai within 14 working days from the date of declaration of the result

Students can put forth their grievances through the grievance cell of the university.

**For Internal Assessment** in Online as well as offline mode we share marks with students, we reconfirm marks with students in Excel Sheet (Online mode)/ take their signatures in offline mode. So there are no revaluation cases for Internal Assessment. However, if a student is not able to appear for Internal Assessment test 1 or Internal Assessment test 2 in case of a medical emergency, a student is allowed to appear for Internal Assessment test 3 through proper channels.

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

### 2.6 Student Performance and Learning Outcomes

2.6.1 Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

#### **Response:**

#### GOALS:

- To uphold and promote the vision statement of the institution.
- Preserve the mandate of AICTE i.e. maintaining high standards of higher education.
- To foster the core values of NAAC i.e. Contributing to National Development, Fostering Global Competencies among Students, Inculcating a Value System among Students, promoting the use of technology and quest for excellence.

#### PROCESS & IMPLEMENTATION:

Program Outcomes (POs) are derived from Graduate Attributes defined by the National Board of Accreditation (NBA) for graduate courses. Program Specific Outcomes (PSOs) and Program Educational Objectives (PEOs) are defined by departments which are specific to the program. Institute has advisory committees like Program Assessment Committee (PAC) and Department Advisory Board (DAB). These committee members review and analyze PSOs.

- The Course objectives and Course Outcomes (COs) are defined in the syllabus framed by the university. Course Outcomes are statements that describe significant and essential learning that learners have achieved and can reliably demonstrate at the end of a course. COs identify what the learner will know and be able to do by the end of a course.
- These outcomes relate to an ability to apply principles of mathematics, science and engineering in a variety of contexts. It also relates to an ability to use the techniques, skills and tools necessary for science & engineering practice and ability to design as well as to analyze and interpret data.
- The Institute ensures that Course Outcomes are achieved through practical approach based on theory and practice as well as its application in the subject area. It is expected that the student is able to apply the knowledge at the end of the course.

#### **TEACHER AWARENESS:**

Our Institute has gone through three cycles of NBA. Hence faculty are aware about POs. COs are defined in university syllabus hence during orientation of the new course, faculty gets aware of COs of that course.

#### **MECHANISM OF COMMUNICATION TO STUDENTS:**

- Program Outcomes (POs) and Program Specific Outcomes (PSOs) are disseminated to the students through digital media, print media, outdoor boards at prominent places.
- POs, PSOs, PEOs are displayed on the website of the Institution.
- Faculty gives an overview of the Program/Curriculum in the context of PEOs, POs, PSOs and CO's in introductory lectures.
- The Lesson plan and Lab plan gives a road map to adhere to the expected outcomes which is shared to the students.
- For each course, faculty members communicate expectations, targets and desirable outcomes of every unit as a part of regular instruction. During the teaching-learning process the faculty constantly emphasize on the targets and standards to be achieved by the students.

File Description	Document
Upload COs for all Programmes (exemplars from Glossary)	View Document
Upload any additional information	<u>View Document</u>
Past link for Additional information	View Document

#### 2.6.2 Attainment of programme outcomes and course outcomes are evaluated by the institution.

#### **Response:**

#### METHODOLOGY ADOPTED

The process of CO and PO attainment is decentralised and done at department level. The Program Assessment Committee (PAC) evaluates CO, PO and PSO attainment. The PAC report is sent to the Department Advisory Board (DAB) and remedies for poor CO, PO and PSO attainment are suggested.

- PO's and PSO's are to be attained through Core Courses and other activities in which all students participate. Each course COs are mapped with POs and PSOs. The correlation is established between CO's and PO's in the scale of 1, 2 and 3; 3 being substantial, 2 being moderate and 1 being low. A mapping matrix is prepared in this regard for every course of the programme.
- Calculation of PO attainment is based on Direct Attributes like
  - CO direct attainment
  - Final year project

#### Indirect Attributes like

- Placement,
- Higher studies
- Student exit survey
- Professional societies
- Co-curricular activities
- LBS
- Survey of courses and other activities.

• PO attainment is done for a batch. Course Performance History, course exit survey, LBS, Professional societies and co-curricular activities are considered for the last 3 years of that batch. Final year project, Placement, higher studies and student survey are considered for the final year of that batch.

**Course Outcome Attainment:** Calculation of CO attainment is based on Direct attributes like End semester Examination results, internal assessment tests in the ratio of 60:40 respectively. Indirect attributes like Presentations, Quiz, SEL feedbacks and other activities are used for calculation of COs. For calculations current year data is considered. Three attainment levels as 1, 2 and 3 are defined.

File Description	Document	
Upload any additional information	<u>View Document</u>	
Paste link for Additional information	View Document	

### 2.6.3 Average pass percentage of Students during last five years

Response: 99.01

# 2.6.3.1 Number of final year students who passed the university examination year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
827	818	877	861	845

# 2.6.3.2 Number of final year students who appeared for the university examination year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
829	819	888	867	868

File Description	Document
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	View Document
Paste link for the annual report	View Document

### 2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process		
Response:		
File Description Document		
Upload database of all currently enrolled students (Data Template)	View Document	

### Criterion 3 - Research, Innovations and Extension

#### 3.1 Resource Mobilization for Research

3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

**Response:** 159.61

3.1.1.1 Total Grants from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
62.2	45.96	44.3	1.85	5.3

File Description	Document
List of endowments / projects with details of grants	<u>View Document</u>
e-copies of the grant award letters for sponsored research projects / endowments	View Document

3.1.2 Percentage of teachers recognized as research guides (latest completed academic year)

**Response:** 5

3.1.2.1 Number of teachers recognized as research guides

Response: 7

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

3.1.3 Percentage of departments having Research projects funded by government and non government agencies during the last five years

**Response:** 74.19

3.1.3.1 Number of departments having Research projects funded by government and non-government agencies during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
4	6	5	3	5

#### 3.1.3.2 Number of departments offering academic programes

2020-21	2019-20	2018-19	2017-18	2016-17
7	6	6	6	6

File Description	Document
Supporting document from Funding Agency	<u>View Document</u>
List of research projects and funding details	<u>View Document</u>
Paste link to funding agency website	View Document

#### 3.2 Innovation Ecosystem

# 3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

#### **Response:**

VESIT has established the Institution's Innovation Council (IIC) an initiative supported and guided by AICTE and the Ministry of Education (MoE), New Delhi in Jan. 2019. The VESIT-IIC conducts various innovation and entrepreneurship-related activities, workshops, share innovation success stories prescribed by MoE Innovation Cell (MIC) in time-bound fashion. VESIT-IIC organize periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators. It conducts Hackathons, Idea Competition, Mini-Challenges etc.

The institute encourages IPR registration and many faculty have filed patents based on their research work. Students and faculty are encouraged to publish research papers and articles based on their project outcomes in refereed journals and conferences. To upgrade the knowledge of the faculty and encourage industry-academia interaction the institute organizes various AICTE funded, AICTE-ISTE approved STTPs and FDPs in the domains of recent trends in the technology. Faculty and students are encouraged to participate in various research project competitions which have resulted in the bagging of several prestigious awards at university, state and national levels.

VESIT-IIC has been awarded a 4.5 Stars in 2019-20 by the MoE, GoI for the Exclusive and Meritocratic Annual Performance. The Star Rating is awarded based on Meritocratic Performance in conduction of various Innovation and Startup related activities prescribed by the MoE, GoI. VESIT-IIC has been recognized for the Meritocratic Performance for two successive years, 2018-19 and 2019-20.

VESIT since its establishment has had a culture of nurturing research abilities at the undergraduate and postgraduate levels. It provides state of the art technology support, adequate infrastructure, seed funding for innovation, mentoring for innovation, research, and training in the recent trends of technology to enable innovations. IPR registration at the institute level based on original innovation/ research work is also encouraged. R and D cell of VESIT with the state of the art facility has received funding from prestigious Government and Non-Government agencies for numerous major and minor projects under various domains. VESIT is regular recipient of Microsoft AI for Earth compute grants. The institute allocates a budget every year for Innovation and Research & Development. VESIT also has *Entrepreneurship Cell (E-cell), E-Yantra Cell, Tinkering lab, V-REACH, LBS* to support and facilitate innovation, incubation and research.

VESIT has established the *Aditya Jyot Eye Innovation Centre* on 21st August 2019. MoU was signed with Aditya Jyot Foundation for Twinkling Little Eyes, Mumbai with the objectives of creating an environment conducive for the aspirants to incubate their ideas including designing and developing collaborative projects on various methods to detect eye diseases using Artificial Intelligence and Image Processing.

VESIT-IIC also contributes to preparing the institute for *Atal Ranking of Institutions on Innovation Achievements (ARIIA) Framework*, establish an ecosystem for scouting ideas and pre-incubation of ideas, and develop the better cognitive ability of students. VESIT has been ranked in Band B (26-50) in the category of Self-Financed Institutes by ARIIA in August 2020.

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for additional information	View Document

# 3.2.2 Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship during the last five years

Response: 44

# 3.2.2.1 Total number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
23	15	4	1	1

File Description	Document	
Report of the event	View Document	
List of workshops/seminars during last 5 years	View Document	

#### 3.3 Research Publications and Awards

#### 3.3.1 Number of Ph.Ds registered per eligible teacher during the last five years

Response: 1.57

#### 3.3.1.1 How many Ph.Ds registered per eligible teacher within last five years

Response: 11

#### 3.3.1.2 Number of teachers recognized as guides during the last five years

Response: 7

File Description	Document
List of PhD scholars and their details like name of the guide, title of thesis, year of award etc	View Document
Any additional information	<u>View Document</u>
URL to the research page on HEI website	View Document

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

**Response:** 1.35

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

2020-21	2019-20	2018-19	2017-18	2016-17
52	57	27	47	35

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document
Any additional information	View Document

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

**Response:** 1.38

### 3.3.3.1 Total number of books and chapters in edited volumes/books published and papers in

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#### national/international conference proceedings year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
60	87	39	24	14

File Description	Document
List books and chapters edited volumes/ books published	View Document
Any additional information	<u>View Document</u>

#### 3.4 Extension Activities

3.4.1 Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the last five years.

#### **Response:**

The institute encourages its students to organize and participate in various extension activities, with a dual objective of sensitizing students on various social issues and contributing by participating in community-strengthening activities. To ensure the attainment of these objectives, a society named SoRT (Social Responsibility Team) was set up in 2008.

SoRT mainly focuses on reaching out to the NGOs that need assistance, both, in and around Mumbai. SoRT has so far volunteered for more than 40 social work activities at VESIT and has helped more than 10 NGOs through donations in kind and supplies. Every year, the team brings together a huge group of students and encourages them to participate in community services.

The SoRT team and students take part in various initiatives like:

- Blood donation, stem cell donation, organ donation drive, eye check-up camps
- Swachh Bharat initiatives and camps on environmental issues
- Awareness programs on AIDS, Cancer, and Drug Abuse
- Drive for registration of Eligible Electors, Zero Tolerance against Sexual Harassment
- Natural Calamity Donation Drive
- Corruption free India

Major events conducted under SoRT, Women's Development Cell and IQAC:

One of the innovative challenges taken up by SoRT pertains to **sanitary hygiene in society**. SoRT has planned to build at least two toilets for Sakhare, which is a quaint little village situated in the rural area near Kalyan, with a population of about 200.

Every year, during the festival of Ganeshotsav and on the day of Anant Chaturthi, the SoRT team assists the Chembur Welfare Brigade and Mumbai Police in monitoring the traffic near R.K Studio. They also assist the authorities to monitor the traffic at Chembur Naka on the occasion of Dahi Handi.

**Swachh Bharat Abhiyaan:** under this drive, the students of VESIT cleaned the premises of Chembur Railway Station.

**Disaster Management and Mock Evacuation Drill:** a safety drill on Fire Management was successfully organized at VESIT in collaboration with Freedom4You Foundation (an NGO for Empowerment of Citizens). The drill was followed by a hands-on workshop on Fire Safety Equipment for students and staff.

The Women's Development Cell of VESIT celebrates International Women's Day and pays tribute to the indomitable spirit of women by organizing special sessions and awareness programs.

**Unnat Bharat Abhiyan:** The institute has received a prestigious Unnat Bharat Abhiyan (UBA) grant of Rs.50,000 for a survey of five villages in the year 2019-2020. The team not only conducts an awareness program about UBA in every village but also surveys each village and each household in every village. Activities like plantation, cloth bags distribution are carried out and workshops on women's health (sanitation) were conducted. Four Technology development proposals have been submitted to the Govt. of India for funding on Technology interventions based on the problems identified in villages in the year 2020-2021.

VESIT was given to BMC as a Quarantine centre for COVID 2019 from 27th April 2020 to 15th July 2020. The initiative has been covered with photographs in many leading newspapers across the country.

File Description	Document	
Upload any additional information	<u>View Document</u>	
Paste link for additional information	View Document	

# 3.4.2 Number of awards and recognitions received for extension activities from government/government recognised bodies during the last five years

Response: 22

response. 22

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

2020-21	2019-20	2018-19	2017-18	2016-17
3	3	5	10	1

File Description	Document
Number of awards for extension activities in last 5 year	View Document
e-copy of the award letters	<u>View Document</u>

# 3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Response: 122

# 3.4.3.1 Number of extension and outreached Programmes conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., yearwise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
21	11	33	42	15

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	View Document

# 3.4.4 Average percentage of students participating in extension activities at 3.4.3. above during last five years

Response: 45.89

# 3.4.4.1 Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachh Bharat, AIDs awareness, Gender issue etc. year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
1443	590	2982	1037	1010

File Description	Document
Report of the event	<u>View Document</u>
Average percentage of students participating in extension activities with Govt or NGO etc	View Document

#### 3.5 Collaboration

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

**Response:** 76

3.5.1.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/internship year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
15	17	18	16	10

File Description	Document
e-copies of related Document	View Document
Details of Collaborative activities with institutions/industries for research, Faculty exchange, Student exchange/ internship	View Document

# 3.5.2 Number of functional MoUs with institutions, other universities, industries, corporate houses etc. during the last five years

Response: 14

3.5.2.1 Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
2	4	5	1	2

File Description	Document
e-Copies of the MoUs with institution/ industry/corporate houses	View Document
Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years	View Document



### **Criterion 4 - Infrastructure and Learning Resources**

#### 4.1 Physical Facilities

4.1.1 The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

#### **Response:**

The Institute fulfils the norms specified by the statutory bodies in terms of land requirement, instructional, administrative and amenities area. The management has erected buildings which are well ventilated, visually and acoustically comfortable; energy, material and water efficient; safe and secure; easy to maintain and operate and which contribute to a stimulating environment. The college is housed in a "C" shaped building. The building is divided in two wings, G+5 storeyed structure and G+7 storeyed structure; amounting to a total area of 19667 sqm. Total area of the campus is nearly 4.7 acres.

#### **VESIT Infrastructure**

Details	No.of Rooms
Classrooms	37
Tutorial Room	14
Laboratory	50
Research and Innovation Lab	04
Server Room	01
Seminar Halls	03*
Amphitheatre	01
Drawing Hall	01
Workshop	01
Computer Centre	04*
Library	01*
Reading_Room	01*
Language Laboratory	02
Faculty Room+Department office+HOD	10
Placement (office + activity rooms + lab)	05
Students' Activity_Room	01
Girls Common Room	01
Sick Room	01
Canteen	01
Exam Control office	01
Central Store	01
Maintenance Room	01
Admin office	01

<sup>\*-</sup>indicates rooms inclusive of both programs

#### **Classrooms and Laboratories**

• Classrooms-37 and laboratories-50 are well furnished and well equipped.

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- Each floor is provided with a wide and well-lit corridor mainly with classrooms, laboratories and common venues on either side.
- Each classroom also has the softboard used mainly to display the course/learning objectives and outcomes.
- All classrooms and labs are ICT enabled with projector facilities. The entire campus is Wi-Fi enabled.

#### **Computing equipment and IT Facilities**

- 25 state of the art high configuration servers.
- 1486 computers connected through LAN, 59-laptops, 214-Laserjet Printers, 18- Scanners and 02-3D printers.
- 60+ licensed application software
- All staff and students are provided with "@ves.ac.in" mail ids through G suit for education.

#### Library

- 49,585 text books and reference books
- 9,724 Titles, 60 National journals, 2,330 International e-journals. Various reputed journals like Springer, Science Direct, IEEE(ASPP+POP)
- LiBSUITE Library Automation Software since 2010. Users can issue/return and search the books online through WEBOPAC

#### **Seminar Hall (Auditorium at Ground Floor)**

- A modern auditorium with space of 185.87 sq meter.
- 180 seating capacity
- State-of the art audio visual facility and projection facilities.

#### **Placement Cell**

• Placement activity is conducted in a separate area, which includes the discussion room, interview room and presentation area.

#### Other infrastructure

- A modern amphitheatre with space of 6000 sq.ft.
- There are 217 CCTV cameras for surveillance fitted in the campus
- 05 Digital displays are installed.
- Hostel, Canteen facilities, Staff quarters and Guest Room are available.
- Infrastructure is designed to address the needs of physically disabled students. To ease the hardship endured by disabled students. We have provided special arrangements
- Institute is equipped with backup with Diesel Power Generator.128 KW/160 KVA and UPS-20 KVA set to provide continuous electricity supply in case of any failure from the utility.
- Bank ATM on campus.
- Purified drinking water on all floors.

Institute offers students different self-learning, learning beyond syllabus facilities and skill enhancement activities.

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for additional information	View Document

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

#### **Response:**

#### **Sports**

- Sports is a means of physical and mental development besides excelling in the academic performances in college. In terms of Infrastructure, VESIT is one of the best colleges in Mumbai to provide an opportunity for the students to participate in sports, games and cultural activities in a big way.
- College has the facility of sports ground and student's activity room on the ground floor for indoor and outdoor games.

• The staff and students have access to these facilities as and when required.

#### Games (Indoor/Outdoor)

- Indoor and outdoor games competitions are held every year under the name of "SPHURTI"
- Games conducted under Indoor Sphurti
  - Carrom
  - Chess
  - Table Tennis
  - Futsal
- Games conducted under Outdoor Sphurti
  - Football
  - Cricket
  - Throw Ball
  - Tug of War
  - Volleyball
  - o DodgeBall
- College has standard multipurpose playgrounds measuring approximately 13,200 sq. m (Playground-1) and approximately 11,231 sq. m (Playground-2)
- Indoor and Outdoor sports are also conducted for college staff.
- College teams participate in various inter-collegiate sports competitions and few students are also selected to play on behalf of the University of Mumbai.
- Girl students are encouraged to participate in games such as football and cricket.

#### Cultural

- Events conducted under cultural activities are
  - Prarambh
  - Illusion
  - Bliss
  - Octaves
  - VESLit Week
  - Utsav
  - Annual Day
- College has a beautiful and decorative Amphitheatre mostly used for cultural events and other activities. It is also used by the students for co-curricular and extra-curricular activities of the college.

• College has a well equipped Wi-Fi enabled Auditorium with a seating capacity of over 180 people. It has an advanced light and sound system. It is equipped with a large stage, comfortable seating, wall paneling for acoustic effects and air-conditioners. It is also used for cultural activities, placement drives etc.

#### **Co-Curricular Event (Technical Event)**

• VESIT conducts a plethora of technical events throughout the year. The flagship of many technical extravaganzas is "Praxis", an annual tech-fest organized jointly by various technical societies. This event hosts a number of competitions, games, workshops and much more.

At VESIT co-curricular, cultural and sports activities are organised throughout the academic year under the supervision of the faculty alongside academics. College spends a significant amount every year for the development of sports, cultural and technical events infrastructure. These events not only foster the technical growth of the students but also allow them to discover new and exciting avenues in their domains.

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for additional information	View Document

### 4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)

Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 40

File Description	Document
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	<u>View Document</u>
Upload any additional information	<u>View Document</u>
Paste link for additional information	View Document

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

Response: 14.06

# 4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
15.82	168.73	139.67	79.12	81.66

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

#### 4.2 Library as a Learning Resource

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

#### **Response:**

Library plays an important role in supporting academic programmes of VESIT. It provides access to information resources like books, journals, newspapers and other resources such as e-books, e-journals, videos, CDs and DVDs which broadens the horizon and stimulates the thought process of the readers.

VESIT library has a diverse collection of 49,585 text books and reference books, 2,330 e-journals, and 10,613 e-books. The majority of books and journals fall in the domain of Computer Science, Information Technology, Electronics Engineering, Communication Engineering, Instrumentation, Artificial Intelligence, Data Science, Humanities & Applied Sciences etc. New titles are added every year to widen the spectrum of books in the library including management, art and literature.

In the current age of technology library automation is extremely essential. There is a huge need for access to the desired literature for the stupendous growth in the various fields of knowledge. Keeping that in mind VESIT uses LiBSUITE library automation software which is an initiative to strengthen the eco-friendly move to reduce the use of paper and smoothen the day to day functioning of our library.

#### **TURNITIN**

This software is used to check the similarity index of the research documents.

#### VESIT ILMS ( LiBSUITE)

LiBSUITE for Windows version 6.0 is an integrated software package that caters to the various aspects of library management. LiBSUITE has been divided into operational modules to deal with each of these aspects. LiBSUITE is very user-friendly allowing users with little or no previous background in using computers to get acquainted and exploit all the features offered by it. Computerisation of any library leads to efficient and fast data retrieval and is by far the most useful feature. It offers advanced and complex algorithms for bibliographic searches. LiBSUITE is partially automated. Users can issue/return and search the books online through WEBOPAC. Systems are provided for accessing digital libraries with high-speed internet connection.

#### **Books Acquisition system followed in Library:**

- Librarian makes a list of recommended books and sends it to identified Vendors for price quotations.
- Library supporting staff fill the Indent for the books requisition through the software by **Khushi**.
- Price quotations along with the Indent, comparative statement and requisition form are sent to the Purchase Manager to decide the vendor for supply.
- Received books are cross verified by Librarian as per the order placed. Book is then entered into the Accession register.
- New arrivals are displayed on the library notice board.

Name of ILMS software

- LiBSUITE Library Automation Software

• Nature of automation (fully or partially) - Partially

• Version - 6.0

• Year of Automation - 2010

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for Additional Information	View Document

#### 4.2.2 The institution has subscription for the following e-resources

- 1.e-journals
- 2.e-ShodhSindhu
- 3. Shodhganga Membership
- 4.e-books
- 5. Databases
- 6. Remote access to e-resources

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

File Description	Document
Upload any additional information	View Document
Details of subscriptions like e-journals, e- ShodhSindhu, Shodhganga Membership, Remote access to library resources, Web interface etc (Data Template)	View Document

# 4.2.3 Average annual expenditure for purchase of books/e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

Response: 22.36

# 4.2.3.1 Annual expenditure of purchase of books/e-books and subscription to journals/e- journals year wise during last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
18.0607	21.92588	21.51368	18.44907	31.84460

File Description	Document
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the last five years (Data Template)	View Document
Audited statements of accounts	<u>View Document</u>
Any additional information	<u>View Document</u>

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

**Response:** 0.77

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

Response: 24		
File Description	Document	
Details of library usage by teachers and students	View Document	
Any additional information	<u>View Document</u>	

#### 4.3 IT Infrastructure

#### 4.3.1 Institution frequently updates its IT facilities including Wi-Fi

#### **Response:**

VESIT has always correlated effective teaching with 'State of the Art' IT facilities. With this ethos VESIT has been regularly updating its IT infrastructure in tune with the latest trends. Following are some of the measures taken by VESIT as and when required.

- Improved versions of computing facilities, more servers and latest systems, new software packages.
- Increasing the bandwidth to ensure high speed internet. We have internet connection from multiple vendors to ensure uninterrupted internet services for WiFi enabled campus.

#### 1.Hardware

#### Hardware:

Institute has a wide variety of Servers, Firewall, Desktops, Laptops, Printers, Scanners, Softwares, Internet Bandwidth Switches and Wireless Access Points.

#### **Server:**

The Institute has 25 high end servers including Dell T20/T30/HP proliant ML110G6 like DELL POWEREDGE T30, SERVER - INTEL XEON E3 1225V3 (QUAD CORE) 3.2GHz, 16 GB (8GBX2) RAM with 2TB SATA HDD that are utilized for DATACENTER / NPTEL SERVER, ANTIVIRUS SERVER, TALLY SERVER, MATLAB SERVER, ORACLE, ACCOUNT DATA SERVER and TALLY BACKUP SERVER, maintained over the years from 2010 to 2021.

#### **Firewall**

High-end Cyberoam is the main firewall with throughput of 28 Gbps to provide optimal performance, versatility and efficiency to meet the growing security needs. It allows load balancing

between two or more active gateways by using a round robin algorithm.

#### **Computing Facilities**

The Institute has 1486 networked computers of various configurations such as Intel i7, i5 and i3.In addition to these network computers, the institute has 59 laptops, 214 laserjet printers, 18 scanners and 02 printers(3D).

#### 2.Software

The Institute has Over 60 Software Packages/Tools with perpetual Licenses or Subscribed such as MSDN License from Microsoft now called Visual Studio Subscriptions(MSDN Platforms is available exclusively through Microsoft Volume Licensing), Netsim Academic-11, Wave Optics Multiphysics for Comsol, Sensimer, Matlab, Net Protector Total Security-1200 users & LiBSUITE Software

#### 3.Wi-Fi and Internet

The campus has an Internet enabled network with bandwidth of 100Mbps and 15 Live IPs. In past five years the bandwidth of internet has been increased from 48 Mbps to 100 Mbps with 1:1 ILL# ratio to cater the growing demand of bandwidth by various online compuring.

#Internet Leased Line Ratio 1:1 ILL means that if we Subscribe Internet Bandwidth of 100 Mbps then 1:1 means 100 MB of Data we are able to download and 100 MB of Data can be uploaded.

#### 4. WiFi and LAN Access points

Network comprises 90 Switches, 05 Routers and 92 Wireless access Points that can be provided to authorised users with 20 KVA UPS POWER BACKUP for Server Room .

File Description	Document	
Upload any additional information	<u>View Document</u>	
Paste link for additional information	View Document	

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

Response: 2:1

File Description	Document
Student – computer ratio	<u>View Document</u>

#### 4.3.3 Bandwidth of internet connection in the Institution

**Response:** A. ?50 MBPS

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

#### 4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage of expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the last five years(INR in Lakhs)

Response: 17.82

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

2020-21	2019-20	2018-19	2017-18	2016-17
131.28	156.85	126.92	122.56	73.97

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	View Document
Audited statements of accounts	View Document

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

#### **Response:**

#### **Utilization of the Infrastructure**

In addition to the regular academic activities, the infrastructure is utilized regularly for extra-curricular and co-curricular activities. Procedures for utilization of infrastructure are as follows.

#### Established Procedures for Utilization of the Infrastructure

#### I. Procedure for utilization of the classrooms

- 1. The classes are conducted as per time-table
- 2. In addition to the scheduled lectures, upon the availability, classrooms are made available to the students for various society activities. For such activities, prior permission of the Head of the Department is required in the written form.

#### II. Procedure for utilization of the laboratory

The laboratory sessions are conducted as per time-table. Laboratories are made available to the students for the experimentation, project work and various workshops/technical activities of the society with prior permission of the Head of the Department.

#### III. Procedure for utilization of the library

- 1. Issue of the books, dissertation reports, theses etc. is performed on a regular basis and records are maintained using LiBSUITE.
- 2. The library provides adequate space to the students and staff for study and facilitates them to access the books, periodicals and reports upon the deposit of identity cards.
- 3. Also, the library is utilized for the book exhibitions.

#### IV. Procedure for utilization of Seminar halls, Auditorium, Amphitheater and Premises.

- 1. Auditorium and seminar halls are utilized regularly by all the departments and research forum of the institute for expert's lectures, seminars and workshops with the prior booking online.
- 2. Classrooms, laboratories, auditorium, amphitheater and premises are made available to the students with the written approval of the event incharge and respective incharge of the facility.

#### V. Procedure for utilization of play ground, indoor sport facilities

- 1. To use the sport facilities or play ground students have to take prior permission from the sport incharge.
- 2. The sports gears/accessories are issued to the students after deposit of their ID cards and recorded in the register.
- 3. The ID cards are returned back to the students upon the return of the sport gears/accessories.

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#### Maintenance of the Infrastructure

V.E.S Institute of Technology has a Maintenance Department with a designated officer and 06 skilled staff members including one supervisor. This department undertakes various activities for maintenance and repair-work of

- 1. Buildings and premises, water supply and sewage system, trees and plantation in the premises.
- 2. Electrical installations such as lamps, fans, air conditioners, CCTV cameras installed in the building and premises.
- 3. Equipment/instruments, upgradation of computer/IT infrastructure in the laboratories.

Also, for daily cleaning of the entire building and premises, the college gives annual contract to an outside agency for house-keeping. In addition to the regular cleaning with disinfectants and pest control, the sanitisation of entire premises is done periodically during the pandemic period.

For safety of the building and the people, every year the college arranges seminars, exercises/mock-drill on 'Fire-fighting' under the guidance of the government authorised fire-fighting professionals.

#### **Established Procedures for Maintenance of the Infrastructure**

The Institute has established the procedures for maintenance of the infrastructure. Essentially, there are three procedures as follows.

#### I. Procedure for maintaining the building infrastructure

- 1. Register the service/repair request with the Maintenance Department.
- 2. Verification of service/repair request is performed by Dean, Infrastructure and maintenance incharge.
- 3. If the problem mentioned in the service request is verified, then maintenance in-charge prepares the service requisition form related to the request and raises indent for the procurement of material, if needed.
- 4. Further, the service requisition form and indent is sent to the Head of the Institute for authorisation.
- 5. Once authorised by the Head of the Institute, the service requisition form is handed over by the Maintenance Incharge to the appropriate team or to the vendor if the problem is not repairable locally.
- 6. After the job is done, Dean, Infrastructure authorises the bill, forwards it to the Head of the

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Institute and closes the job.

#### II. General procedure for maintaining the equipment in laboratories

VESIT has standard guidelines for the utilization and maintenance of the equipment in the laboratories. Typical flowchart for the process of maintenance of the Laboratory equipment is shown in the following flowchart. Please refer to *Additional Document* for Standard guidelines for laboratory utilization and maintenance.

- 1. If the problem could not be identified or fixed by the Laboratory Assistant, then a service/repair request is registered with the Maintenance Department.
- 2. Laboratory Assistant records the transfer of equipment and updates the Bin card (History card) of the equipment under service.
- 3. Verification of service/repair requests is done by Dean, Infrastructure and maintenance incharge.
- 4. The service requisition form is prepared and sent to the Dean, Infrastructure and the Maintenance incharge.
- 5. An indent is raised to procure a faulty part for repair of equipment or it is raised for the repairing of the equipment from the outside agency after authorization by the Head of the Institute.
- 6. The equipment is handed over to the local maintenance team or vendor's repairing team to fix the problem.
- 7. After the equipment is repaired, it is given back to the requester.
- 8. Dean, Infrastructure authorizes the bill of work and sends it to the Head of the Institute and closes the Job.

#### III. Procedure for scrapping of outdated equipment in laboratory

- 1. If some of the equipment/instruments are not working or out of order then the Laboratory Assistant prepares the list of equipment that are neither working nor repairable/outdated.
- 2. The Head of the Department verifies the list and sends it to the Maintenance Department.
- 3. The Maintenance Department verifies them and presents it to the Scrapping Committee.
- 4. Upon the confirmation from the scrapping committee, the Maintenance Department processes it further for scrap disposal.
- 5. When the collective scrap of equipment from various laboratories is found to be adequate to sell, quotations from various scrap-merchants are invited.

6. Based on quoted price, the Head of the Infrastructure and Purchase Incharge selects the dealer who offers the highest price for the stated scrap and sends it to the Principal and Managing Trustee.

File Description	Document	
Upload any additional information	<u>View Document</u>	
Paste link for additional information	View Document	

### **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 Government during last five years

**Response:** 30.61

5.1.1.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
1150	1105	1005	813	588

File Description	Document
upload self attested letter with the list of students sanctioned scholarship	View Document
Upload any additional information Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years (Data Template)	View Document

5.1.2 Average percentage of students benefitted by scholarships, freeships etc. provided by the institution / non- government agencies during the last five years

Response: 4.41

5.1.2.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
61	88	104	202	228

File Description	Document
Upload any additional information	<u>View Document</u>
Number of students benefited by scholarships and freeships institution / non- government agencies in last 5 years (Date Template)	View Document

# 5.1.3 Capacity building and skills enhancement initiatives taken by the institution include the following

- 1. Soft skills
- 2. Language and communication skills
- 3. Life skills (Yoga, physical fitness, health and hygiene)
- 4.ICT/computing skills

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

File Description	Document	
Details of capability building and skills enhancement initiatives (Data Template)	View Document	
Link to Institutional website	View Document	

# 5.1.4 Average percentage of students benefitted by guidance for competitive examinations and career counselling offered by the Institution during the last five years

Response: 88.75

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

2020-21	2019-20	2018-19	2017-18	2016-17
6715	1254	1650	1843	2012

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	View Document

# 5.1.5 The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases

- 1. Implementation of guidelines of statutory/regulatory bodies
- 2. Organisation wide awareness and undertakings on policies with zero tolerance
- 3. Mechanisms for submission of online/offline students' grievances
- 4. Timely redressal of the grievances through appropriate committees

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

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

### **5.2 Student Progression**

### 5.2.1 Average percentage of placement of outgoing students during the last five years

**Response:** 61.72

### 5.2.1.1 Number of outgoing students placed year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
483	498	571	546	513

File Description	Document
Self attested list of students placed	View Document
Details of student placement during the last five years (Data Template)	View Document

### 5.2.2 Average percentage of students progressing to higher education during the last five years

Response: 41.72

### 5.2.2.1 Number of outgoing student progression to higher education during last five years

Response: 345

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File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education (Data Template)	View Document

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

Response: 100

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

2020-21	2019-20	2018-19	2017-18	2016-17
84	96	126	92	95

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

2020-21	2019-20	2018-19	2017-18	2016-17	
84	96	126	92	95	

File Description	Document
Upload supporting data for the same	View Document
Number of students qualifying in state/ national/ international level examinations during the last five years (Data Template)	View Document

# 5.3 Student Participation and Activities

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

**Response:** 74

# 5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national / international level (award for a team event should be counted as one) yearwise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
29	19	13	4	9

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at university/state/ national/international level during the last five year	View Document
e-copies of award letters and certificates	<u>View Document</u>

5.3.2 Institution facilitates students' representation and engagement in various administrative, cocurricular and extracurricular activities following duly established processes and norms (student council, students representation on various bodies)

### **Response:**

The Institute has an active Students Council and various committees which promotes participation of students in academic and administrative bodies to conduct co-curricular and extracurricular activities.

### 1. Presence of Active Student Council:

The institution has a students' council which is a statutory body constituted as per the Maharashtra University Act, 1994. It aims to give students an enriching opportunity to develop leadership by organizing and carrying out school activities and service projects. The general constitution of the students' council is as follows:

#### Dean Student's Affairs (Faculty) President (Student) General Secretary (Student) VESLit SPICE Cultural Sports Music E-Cell SoRT VPC Student Student Secretary Student Secretary Secretary Secretary Secretary Head Head Head Deputy Deputy Deputy Deputy Deputy Deputy Deputy Deputy Cultural Sports SoRT Music E-Cell Student Student Student Secretary Secretary Secretary Secretary Secretary Head Head Head

- Cultural Council: Cultural Council is responsible for all intra and inter collegiate cultural events, like Utsav, Illusion, Ganesh puja, teachers day celebration.
- Sports Council: Sports council is responsible for organizing Indoor sphurti and Outdoor Sphurti, the sports fest under the guidance of faculty in-charge
- Music Council: Music council organizes musical events. Octaves is a music fest which is organized by the Music Council of VESIT every year.
- E-Cell: Polishes the entrepreneur skills of students by conducting various events.
- SoRT: This team works to help the poor and with the help of NGO's conducts events like blood donation camp and health check up camp throughout the year.

• VESLit: Aims at honing the speaking, reading and writing skills of the students by conducting language and literature events.
• VESIT Photo Circle: It is the college's photography group consisting of some of the best photographers of VESIT's photo clicking faction.
• SPICE : It aims to bridge the gap between campus and companies and overall personality development of the students.
2. Students in academic committees for conducting co-curricular activities:
• Class Representatives: One boy and one girl are selected by conducting elections in the class as class representative.
• Departmental Advisory Board: The aim of DAB is to bring industry standards in academics to bridge the gap between industry and academics.
• VESIT-IIC: Union HRD Minister Shri Prakash Javadekar launched the 'Institution's Innovation Council (IIC) program under Innovation cell of MHRD to foster a culture of Innovation in all Higher Education Institutions (HEIs) across the country.
• VESIT AI Club: The mission of this initiative is to promote Deep Learning and AI skills mainstream in India, to fulfill needs of entrepreneurship, Industry-academia partnership, and application-inspired Engineering Research.
• Placement Committee: It selects 4 from each class as placement coordinators, responsible for smooth conduction of placement drive.
• Professional Societies: There are four Professional Societies totally managed by students under the supervision of Faculty In-Charges.

- 1.IEEE
- 2.ISA
- 3.CSI
- 4.ISTE

## 3. Representation on the administrative committees:

Students are involved in following administrative committees-

- 1. College Development Committee
- 2. Internal Complaint Committee
- 3. Committee for SC/ST
- 4. Anti-sexual harassment Committee
- 5. Hostel and Canteen Committee
- 6. Anti Tobacco Committee
- 7. Student Welfare Committee

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

# 5.3.3 Average number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions)

Response: 70.2

# 5.3.3.1 Number of sports and cultural events/competitions in which students of the Institution participated year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
78	74	60	65	74

File Description	Document
Upload any additional information	View Document
Report of the event	View Document
Number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions (Data Template)	View Document

### 5.4 Alumni Engagement

5.4.1 There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

### **Response:**

VESIT has played a pivotal role in shaping the careers of students into Technocrats, Leaders ,Entrepreneurs, Researchers and Global managers. The institute firmly believes in connecting with all alumni through VESIT Alumni Association VESITAA .Therefore the Alumni Association has taken lead by conducting events like Annual Alumni Day and Alumni Mixers.

### AIMS AND OBJECTIVES OF VESIT ALUMNI ASSOCIATION:-

- 1. To provide a platform for interaction between alumni, present students, faculty of the college and college management.
- 2. To aid in improving the facilities and infrastructure of the college.
- 3. To explore the expertise and experience of the alumni.

### **STRUCTURE:**

VESIT Alumni Association has one alumni representative from every department.

### **VESITAA** will provide the **VESIT** students:-

- 1. Visiting / guest faculty.
- 2. Alumni to conduct competitions, seminars and workshops.

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Self Study Report of VIVEKANAND EDUCATION SOCIETY'S INSTITUTE OF TECHNOLOGY

3. Help if required, in conducting sports / cultural meets, examinations.

4.To grant free-ship, Scholarships, Prizes, Monetary assistance, books and/or Stationery to deserving

students, etc.

**VESITAA** will provide the alumni members:-

1. Library, computer laboratory and the Internet facility

2. To participate in the academic and cultural events, annual get together, in social Responsibilities .

3. Offer guidance for professional enhancement

4. To render relief services at the time of natural calamities and emergencies.

**GOVERNING MEMBERS AND FUNCTIONS** 

1. President : Mr. Vijay Srichand Talreja

The President of VESITAA shall preside over the meeting and regulate all the meetings of the managing committee. The President in addition to its rights of voting as a member has a casting vote in case of tie.

2. Secretary: Mr. Tarun Nagpal

Jt.Secretary: Mr.Nayan Ashok Khinvasara

The Honorary Secretary/ Jt. Secretary shall maintain records of the proceedings of the VESTAA and of the governing Body and shall perform such other duties as the President of the Governing Body may by

General or Special order directly.

3. Treasurer: Dr. Manoj Kusamakar Sabnis.

Jt.Treasurer: Dr.Mrs.Gresha S Bhatia

The treasure shall ordinarily collect all payment made to the society and issue receipt and maintain record

books.

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# MANAGING COMMITTEE:

Sr No.	Name & Address	Designation	
01	Mr. Vijay Srichand Talreja	President	
02	Mr. Tarun Nagpal	Secretary	
03	Mr. Nayan Ashok Khinvasara	Jt. Secretary	
04	Dr. Manoj Kusamakar Sabnis	Treasurer	
05	Dr. Mrs. Gresha Bhatia	Jt. Treasurer	
06	Dr. Nandini Ammanagi	Member	
07	Dr. Parmeshwar Birajdar	Member	
08	Dr. Dashrath Mane	Member	
09	Mr. AnupKumar Mhatre	Member	
10	Mr. Prasad Godse	Member	
11	Mr. Jatin Jagtap	Member	
12	Dr. Asawari Dudwadkar	Member	

### Distinguished Alumni Award:

1)Mr. Ajeet Khurana,1991,CMPN -2015

2) Mr.Dr. Deven Shah 2005, ME,IT -2016

3) Ms. Tanushree Bagrodia 2001, CMPN -2017

4)Mr.Amit Rambhia, 1992 EXTC - 2018

5) Mr. Vivek Arora 1993, Electronics -2018

6) Mr.Jayesh Kiranje 2005, EXTC - 2019

### **CONTRIBUTION FROM ALUMINI:**

VESIT alumni contribute significantly to the development of the Institute through the following non financial means like:

- 1. Expert Speaker
- 2. Curriculum Enrichment
- 3. Placements

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for additional information	View Document

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

**Response:** C. 3 Lakhs - 4 Lakhs

File Description	Document
Upload any additional information	<u>View Document</u>
Link for any additional information	View Document

# Criterion 6 - Governance, Leadership and Management

## 6.1 Institutional Vision and Leadership

# 6.1.1 The governance of the institution is reflective of and in tune with the vision and mission of the institution

### **Response:**

VES Institute of Technology (VESIT) believes in working consistently towards providing value-based education, developing an environment that supports sharing and caring to grow and nurture students to work towards excellence in their chosen career path as evident from the Vision and Mission statements stated below:

#### Vision of the Institute

"To create a vibrant knowledge-oriented environment with innovative teaching practices and to inculcate the tradition of socially conscious application of technology"

#### **Mission of the Institute**

- To inculcate a culture of value based education.
- To enthuse students to develop in an ambient environment of caring and sharing of information.
- To enable students to work towards excellence in their chosen fields with a professional bent of mind.

VESIT was established in 1984, with the aim of providing professional education in Engineering. The Institute is affiliated to the University of Mumbai and follows the rules and regulations laid down by the government, AICTE and the University of Mumbai. 51% of the adMissions at VESIT are reserved for Sindhi Linguistic minority while 49% students are admitted through the Centralized Admission Process (CAP).

### **Nature of Governance**

VESIT focuses on providing intellectual, social, cultural, economic and technological benefits to its stakeholders through education, research and training programs. This commitment starts with the directions given by Governing Body(GB) and is ably supported by Institute Advisory Board (IAB), the College Development Committee(CDC) and Statutory and working Committees. These Committees help in planning strategy and improvement processes in academic and administrative activities of the Institute.

### Perspective plans and participation of teachers in decision making

The Institute has been developing perspective plans since its inception in 1984 in consultation with the governing body. In tune with the goals set for academic, administrative, research and development activities, participative approach is applied wherein the faculty members, and other stakeholders are

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involved in the development of plans and its efficient execution.

At the department level, they are internally monitored and evaluated by Group advisors and Programme Assessment Committee(PAC) members. The Department Advisory Board(DAB), which consists of all stakeholders, focuses on the quality of the academic aspects of the department. To further enhance the quality on academic and administrative fronts, VESIT IQAC has been institutionalized in alignment with the Vision and Mission of the Institute.

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for additional information	<u>View Document</u>

# 6.1.2 The effective leadership is visible in various institutional practices such as decentralization and participative management

### **Response:**

VESIT has a decentralized approach towards quality management. These quality standards are monitored by various committees that work towards planning, executing, monitoring and implementing the set goals to ensure complete transparency.

The Principal is the academic & the administrative head who ensures the smooth functioning of all the activities undertaken, with the focus on the Institute's growth.

### **Decentralization in Academic and Administration:**

Based on the academic and administrative policies defined and approved by the Governing Body of VESIT, various Statutory and working committees are formed, involving the faculty and administrative staff at different levels to ensure quick decision making and transparency in the administrative activities.

Decentralization in the academic and administration redistributes authority and responsibilities for providing a better social climate within the organization. It motivates the faculty to play an active role in the decision-making process. This ensures an effective way to create a center of excellence.

To ensure better decentralized academic governance, the Humanities and Applied Science (H&AS)-FE department has been separately created at VESIT. Common courses of the first year offered in the six undergraduate engineering programs are put under this single umbrella of H&AS Department.

### Participative Management:-

The Institute follows the procedure to involve faculty in various decision making policies. The active involvement of faculty and technical staff of the Institute can be perceptible through various department wise committees.

One of the processes which reflects active participation of faculty is, budget planning which is a year-round endeavor involving the choices and priorities for allocating the college's financial resources.

#### **Institute Level**

The Principal scrutinizes and approves the budget of the Institute by collating the budgets prepared by the individual departments.

### **Department Level**

The Departmental Budget Committee comprises the budget incharge, senior faculty members of the department. The committee is responsible for allocation of budget for procurement of equipments, lab consumables or any other department requirements.

The entire process of procurement is summarized as follows:

#### **Procurement Process**

- 1)The respective lab in charges (Faculty) initiate the process of procurement by reviewing new requirements as per syllabus revision and industry requirements and as per the suggestions of the subject experts.
- 2) The technical staff then prepare the indent which is subsequently sent to the HOD for approval.
- 3)The HOD then reviews the requirements based on the availability, product specifications and the quoted price for the same.
- 4)The consolidated proposals are sent to the overall procurement incharge of the Institute who further recommends the proposals for each department.
- 5)All such ratified procurement proposals are set before the Purchase Committee of the Institute for the finalization of technical specifications and quantity.
- 6)The vendors are finalized based on the comparative analysis with respect to the available quotations. The purchase orders are then prepared and negotiated based on the product specifications, quantity, quoted price, quality specifications, place and date of delivery.
- 7)On receipt of the equipment, the purchase committee and the lab in charge inspects the quality and functioning of the technical aspect of goods.

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for additional information	View Document

## **6.2 Strategy Development and Deployment**

### 6.2.1 The institutional Strategic / Perspective plan is effectively deployed

### **Response:**

V.E.S.I.T. since its inception, has always worked on the mission of creating a center of excellence through quality education and promoting a culture of research and innovations. The Institute has been having perspective plans for its development where the goals, challenges and successes are mentioned.

### Activity: Promote a culture for research and development.

To promote this culture of research and development, various activities have been rolled out since 2004 under R&D cell. The major goal of the R & D cell is to encourage faculty members towards developing innovative, unique and indigenous solutions to research problems.

### **Objectives:**

- 1. To encourage research and development culture at VESIT
- 2. To increase research grants
- 3. To promote research and innovation based expert sessions
- 4. To develop research labs
- 5. To enhance industry collaborated funded projects/STTP/FDP
- 6. To establish Ph. D. center in various branches
- 7. To encourage entrepreneurship through E-cell and innovation related activities.

R&D cell focuses on projects in the field of Nuclear Instrumentation ,Low level signal generation, Processing, conditioning and measurement,Fiber Optics Instrumentation. Embedded systems. Big Data Analytics Cloud Computing Internet of Things (IoT)Artificial intelligence, Data Science,Machine learning, Cyber security and many more.

To promote innovations, various laboratories have been set up in collaboration with different organizations such as: Cloudera Lab, D-Link academy, NI-View Lab, MODROB Lab E-Yantra and many more. The institute also has various initiatives, such as Entrepreneurship Cell, VESIT Renaissance Cell, Tinkerer's lab, Looking Beyond Syllabus and Research forum to support and facilitate research and innovation. The

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research culture at VESIT is further strengthened through a number of funded research projects Grants.

With the goal of creating a Center of excellence and promoting quality research and innovation, VESIT tied up with MHRD's innovation Council (MIC),Govt. of India and established "VESIT-Institution Innovation Council(VESIT-IIC)" in January 2019.

VESIT IIC majorly focuses on creating a vibrant local innovation ecosystem, start-up supporting mechanism, preparing the Institute for Atal Ranking of Institutions on Innovation Achievements Framework and incubation of Ideas.VESIT IIC also conducts various innovation and entrepreneurship-related activities, workshops, seminars, interactions with entrepreneurs, investors, professionals and creates a mentor pool for student innovators.

To upgrade the knowledge of the faculty through IPR and related technologies and encourage industry-academia interaction, the Institute organizes various AICTE funded and approved Short Term Training Programs and Faculty Development Programs.

Students and faculty are encouraged to publish research papers in refereed journals / conferences and participate in various research project competitions. This has resulted in the bagging of several prestigious awards at the university, state and national levels. The project entitled "Calibration system for Nuclear spectroscopy Applications" has been awarded the prize in "Swadeshi Microprocessor challenge-2020".

VESIT IIC has been awarded 4 and 4.5 Star rating (out of 5) in 2018-19 and 2019-20 respectively by the Ministry of Education, Govt of India.

For developing a holistic approach towards innovation, creation and transfer of knowledge, VESIT is working towards creating an ecosystem for innovations through its Incubation centre.

File Description	Document
Upload any additional information	View Document
strategic Plan and deployment documents on the website	View Document
Paste link for additional information	View Document

6.2.2 The functioning of the	e institutional bodies	is effective and	efficient as vis	sible from po	licies,
administrative setup, appoi	intment and service r	ules, procedure	es, etc.		

<b>Pre-IQAC</b>	<b>Organo</b>	gram:

**Response:** 

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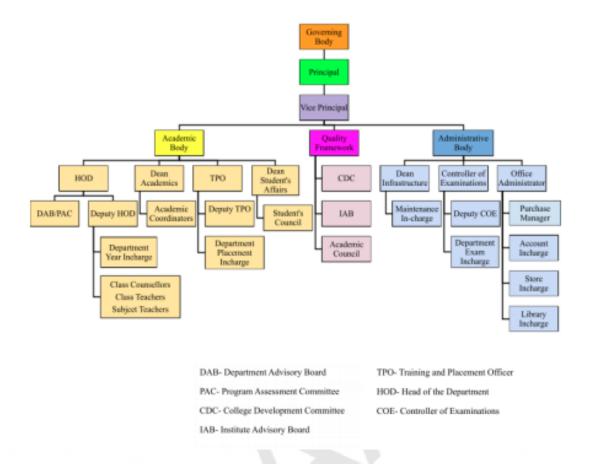


Fig1: Pre-IQAC Organogram

Governing Body (GB): The Governing Body (GB) is constituted as per AICTE norms.

**The Principal:** The Principal is the academic and administrative head.

**The Vice Principal:** For efficient functioning of the institute, the Principal is assisted by the Vice Principal.

#### (I) Academic bodies:

- (A) **Head of the Department (HOD):** is responsible for the overall coordination and development of the department.
  - The Department Advisory Board (DAB): Ensures the alignment between PEOs and Mission statement, provides support for entrepreneurship development for students and assists in improving Industry Institute Interaction.
  - The Program Assessment Committee (PAC): Evaluates departmental activities on various quality parameters.
  - Deputy HOD(Dy. HOD): For smooth functioning of the department, HOD is assisted by Dy.

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HOD.

- **Department Year Incharge:** is responsible for smooth conduction of all the academic activities of the department.
- Class Counsellor: Class counsellor mentors the students for his/her overall development.
- Class teachers: Class teachers are responsible for the overall coordination of the class.
- **(B) Dean Academics:** provides leadership in conceptualizing the directions of the Faculty and work out a roadmap to achieve it.

**Academic Coordinator:** Academic Coordinator is responsible to provide the academic calendar, the schedule and other related academic arrangements

- (C) Training and placement officer (TPO): provides career counselling and plans for various placement activities. TPO is assisted by Dy. TPO and Department placement in charges.
- **(D)Dean of Student Affairs (DOSA):** Coordinates the student activities, handles grievances and maintains overall discipline.

### (II) Administrative bodies:

- 1. **Dean of Infrastructure (DOI):** is responsible for maintenance of infrastructure at the Institute.
- 2. **Controller of Examinations (COE):** is responsible for smooth conduction of Examinations as per University norms.
- 3. **Office Administrator:** performs the daily activities of account, purchase, Inventory store and management, Library operations and Principal office activities.

### (III) Quality framework:

- 1. **Institute Advisory Board (IAB):** is constituted by the Institute to bring in industry expertise to enable the Institute to achieve excellence in teaching-learning and research with an outcome to maximize innovation and employability.
- 2. College Development committee (CDC): The main objective of the CDC is to prepare an overall comprehensive development plan of the college on an annual basis. CDC is constituted under Mumbai University norms.
- 3. **Academic Council:** The Academic Council's main objective is to ensure a healthy academic atmosphere and enhance the learning experience for the students.

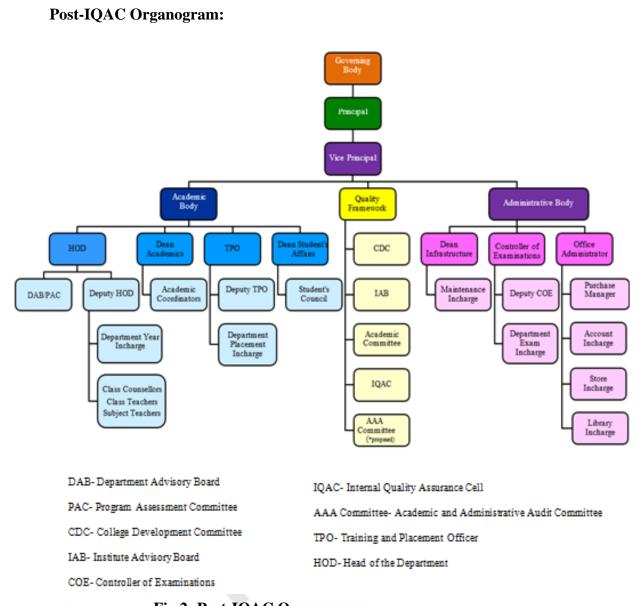


Fig 2: Post-IQAC Organogram

After the establishment of IQAC, the Academic Council is replaced by an Academic Committee and an Academic and Administrative Audit committee (AAA) is proposed.

**Internal Quality Assurance Cell (IQAC):** VESIT- IQAC is constituted with a Vision to ensure quality culture as the prime objective for the Institute. It is the prime responsibility of IQAC to initiate, plan and supervise various activities that are necessary to increase the quality of the education imparted in the institution.

Academic and Administrative Audit Committee (AAA): Academic and Administrative Audit committee is proposed in order to evaluate the performance of various academic and administrative activities.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document
Link to Organogram of the Institution webpage	View Document

## 6.2.3 Implementation of e-governance in areas of operation

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

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

File Description	Document
Screen shots of user interfaces	<u>View Document</u>
ERP (Enterprise Resource Planning) Document	<u>View Document</u>
Details of implementation of e-governance in areas of operation, Administration etc	View Document
Any additional information	<u>View Document</u>

# **6.3 Faculty Empowerment Strategies**

### 6.3.1 The institution has effective welfare measures for teaching and non-teaching staff

### **Response:**

The Institution recognizes all its employees as the most valuable resource and provides a caring and supportive working environment to all staff which enables them to develop and optimize their full potential.

### A) Welfare Schemes for Teaching Staff:

- Sponsorship Fee Reimbursement for STTP/Workshop/ Professional Membership/Paper publication.
- Empowering teachers with personal computation facility: VESIT provides computers to every faculty and encourages them to ICT Tools.
- Housing facility at the staff quarters is provided by VES.

### B) Welfare Schemes for Non-Teaching staff:

- Sponsorship/Fee Reimbursement for Workshop/Training: Fee reimbursement is given as per the required norms.
- **Training for soft skills:** VESIT gives equal emphasis on the soft-skills training of non-teaching staff.
- **Staff Uniform:** All peons of the Institute are provided with two sets of uniform whose cost is borne by the Institute.
- Advance salary payment: Institute provides advance salary to class 4 employees in case of need.

### C) General Welfare schemes for all staff:

VESIT has a conducive work environment and provides various welfare schemes such as:-

- Staff Welfare Committee:(SWC): Institute's in-house SWC focuses on measures to support the teaching faculties as well as plan the recreational programs, felicitation of teachers completing 20 years of service and retirement programs at the Institute.
- Employee Provident Fund (EPF) scheme: As per the existing norms of Central Government, EPF scheme is implemented for teaching and non-teaching staff.
- **Service Gratuity:** The service gratuity shall be paid to the employees who are eligible as per the norms.
- **Policy for Higher Studies (QIP):** VESIT recognizes the need for quality improvements of its faculty. Those who have completed two years of probation service are eligible to apply for higher studies.
- Leave for staff members: VESIT offers various leaves based on the norms, depending upon the situation and cadre of employees.
- Working at VESIT after retirement: Retired staff members are offered various positions on adhoc basis as per the requirement of the Institute and eligibility and willingness of the employee at that time.
- Accident Group Insurance: The Management of VES took an initiative to provide an insurance cover of Rs. 2,00,000/- per year (The New India Assurance Co.Ltd.) for all the employees of VESIT.
- **Medical Facility:** VESIT provides a Doctor On Call medical support facility. First Aid boxes are available at various locations on campus. In case of medical need, staff can avail of the sick room facility.

- **Health Awareness Programs:** The Institute arranges health awareness programs like yoga sessions and health check up drives through its Social responsibility team.
- Counselling Centre: The Institute has collaborated with its sister concern, VES Counselling Centre called VESLARC set by VES to address any issues faced by students & staff.
- Early Salary payments during festivals: During prominent festival times, salaries of staff are credited in advance.

File Description	Document
Upload any additional information	<u>View Document</u>

# 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: 1.52

# 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

2020-21	2019-20	2018-19	2017-18	2016-17
0	6	2	0	4

File Description	Document
Upload any additional information	View Document
Details of teachers provided with financial support to attend conference, workshops etc during the last five years	View Document

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

### Response: 4

# 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

2020-21	2019-20	2018-19	2017-18	2016-17
7	5	3	2	3

File Description	Document
Upload any additional information	View Document
Reports of Academic Staff College or similar centers	<u>View Document</u>
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff	View Document

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

Response: 55.47

# 6.3.4.1 Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
125	95	82	65	63

File Description	Document
Upload any additional information	View Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View Document
Details of teachers attending professional development programmes during the last five years	View Document

### 6.3.5 Institutions Performance Appraisal System for teaching and non-teaching staff

### **Response:**

### **Appraisal system for teaching staff:**

A performance appraisal system (PAS) is followed every year to measure the performance of faculty members. It is similar to the API (Academic Performance Index) of UGC. The form consists of two parts. The first comprises of personal details related to academic qualifications, merits, and awards received in the academic year. The second part is to evaluate the API which has three different categories.

In category I, 'Teaching Learning and Evaluation', the faculty has to claim the API score depending on the number of lectures conducted, the percentage of syllabus covered, passing percentage of the students and the number of extra lectures or remedial classes conducted. It also includes the involvement of the teachers in establishing labs, feedback of faculty from the student, parent, and HoD. The examination related work like paper evaluation, paper setting, and conduction of university examinations, etc are also considered.

In category II, "Co-curricular, Extension, Professional Development Related Activities' 'the involvement of the faculty member in the co-curricular, administrative and professional development activities is considered in calculating API score. The professional development activities play a vital role in claiming the API score by constant up-gradation of academic credentials and additional certification by participating in workshops, seminars and training programs, etc.

In category III,"Research, Publications And Academic Contributions", Research, Academic contribution, and Industry connection, and placement assistance are measured in this category. Each faculty has to score a minimum of 200 marks out of 250. in category 1. In category 2, out of 75 marks, a faculty member has to score a minimum of 30 marks. In category 3, depending on the research work the API score is claimed there is no limit on API score in this category.

## **Non-teaching staff: Performance Appraisal**

The function of the non-teaching staff is to provide academic and administrative support for smooth and organized conduction of various activities in the Institute. Non-teaching staff performance is assessed in every academic year based on attitude towards co-workers, public, perceptivity and sensitivity, staff/student relation, dependability, attendance/job performance, initiative, response to superVision, Judgment/decision making, method of expression, potential, innovation and creativity, job knowledge, related accomplishments. The assessment uses questionnaires based on the above-specified parameters and non-teaching staff is evaluated on a five-point scale.

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for additional information	View Document

## 6.4 Financial Management and Resource Mobilization

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

### **Response:**

Vivekanand Education Society (VES), parent body of the institution believes in continuous monitoring of financial aspects of the college. The VES management appoints internal and external auditors annually. Auditing processes of VESIT takes place in two stages namely, Internal Audit and External Audit. The VES management started an internal audit from 2011-12. The appointed Auditors conduct audits of the college accounts and submit their reports annually. The account section takes due care to rectify and

prepares compliance reports of all the queries raised/pointed out by internal auditors in their audit report. Most of the transactions are in non-cash mode and are maintained using Tally ERP 9 Software. Sensys EasyPay from Sensys Technologies Pvt. Ltd., is used for salary related computations and disbursement and also for Income Tax purposes including generating of Form 16. The salary of each employee is directly credited into their bank accounts and Easy Pay is used to generate the quarterly income tax returns of the taxes deducted at source for various activities including monthly salary.

Budgeting is a quite challenging activity in VESIT considering the seven departments with varying requirements. Each department creates its own budget and the budgets of all departments are consolidated at the college level in consultation with the finance officer and governing body of the institution. Regular monitoring of funds also helps to monitor the financial health of the college, in timely meeting of financial commitments to all debtors and all payment of salaries on time to its employees. Thus, VESIT has always been a financially prudent institution.

File Description	Document
Upload any additional information	<u>View Document</u>

# 6.4.2 Funds / Grants received from non-government bodies, individuals, philanthropers during the last five years (not covered in Criterion III)

Response: 25.91

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

2020-21	2019-20	2018-19	2017-18	2016-17
3.48	9.54	5.84	7.05	0

File Description	Document
Details of Funds / Grants received from of the non-government bodies, individuals, Philanthropers during the last five years	View Document
Any additional information	<u>View Document</u>
Annual statements of accounts	View Document

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

### **Response:**

VESIT is a linguistic minority institution and funding required for running the college is mostly self-

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generated. The fees approved by the Fee Regulating Authority (previously known as Shikshan Shulk Samiti), Government of Maharashtra, that the students pay is the main source of funds for the operational purpose. The Institute's budget is the primary instrument of fiscal control and, accordingly, contains all projected revenues and expenditures of the administrative and academic programs.

For effective and efficient use of available financial resources, the accounts section prepares the annual budget by collecting the estimated/ expected budgetary requirements from all departments. The budget statement for every year is presented in the General Body Meeting (GBM) for approval. Estimated budget and actual expenditure during the financial year is regularly monitored by the respective departments. The college has an inbuilt mechanism of reviewing the actual expenditure and comparing it with the budgeted figures, which helps the college to have a control over the spending in running of the college. The management has evolved a centralized policy for purchase of common utility items and services (stationery, printing, cleaning material and computers etc.). List of vendors is prepared by the purchase officer after inviting tenders for supply of college requirements. Standard procedures are strictly followed for all purchases and expenditures. Non-budgeted expenditures having financial implications are screened and reviewed by the management before sanction. Whenever the college faces a deficit, the VES management extends its helping hand. Financial audit is conducted annually to ensure transparency at every stage.

File Description	Document
Upload any additional information	<u>View Document</u>

# **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

#### **Response:**

#### **Prior to IOAC:-**

A number of quality initiatives have been conducted by the Institute over years prior to establishment of IQAC. These quality initiatives were categorised into:

- 1. Accreditation Related Initiatives
- 2. Academic Initiatives
- 3. Industry Institute Interaction Initiative
- 4. Strategic Initiative

The entire evaluation framework involved academic audits done through the Group Advisors, Program Assessment Committee (PAC) and Department Advisory Board(DAB).

### **Post IQAC:-**

VESIT-IQAC was established on 9th January 2020 as per guidelines of UGC & NAAC with the aim of promoting measures for quality enhancement. It would evaluate the quality through strategies and processes as per the proposed structure as represented in the diagram below:

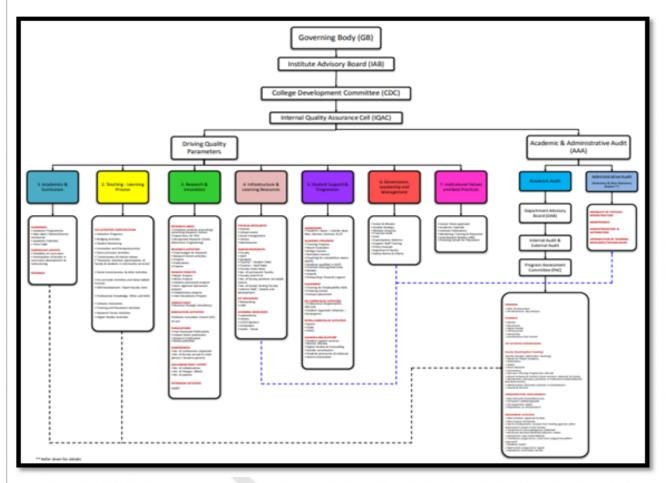


Fig 1: - Proposed IQAC structure

### Vision of VESIT-IQAC

To ensure quality culture as the prime objective for the Higher Education Institutions through institutionalizing and internalizing all the initiatives taken with internal and external support.

During IQAC meetings several quality enhancement and quality assurance measures evolved. Through brainstorming sessions, VESIT IQAC planned to adapt the NAAC quality assurance mechanism post formation of IQAC through reviewing and assessing the entire process under the NAAC seven criteria:

- 1. Curricular Aspects
- 2. Teaching- Learning and Evaluation
- 3. Research, Innovations and Extension
- 4. Infrastructure development

### 5. Student Support and Progression

### 6. Governance, Leadership and Management

#### 7. Institutional Values and Best Practices

IQAC focuses on a systematic method of reviewing the quality of academic processes, assessment of policies, strategies as well as functions of the various administrative departments. In line with the vision of IQAC, an Academic and Administrative Audit committee(AAA) has been proposed.

### **Initiative 1: Quality Enhancement Initiative**

With the intent of having more quality based programs for the faculty members of VESIT, a number of sponsored FDPs and STTPs were initiated.

### 1. Sponsored FDP/STTP:

Sr no	Details	Funding Agency	Grant/Funds received (INR)	Year
1	Online STTP on "Green IoT",  Phase 2 and Phase	AICTE	1,79,666 Lakhs	2020-21
2	Online STTP on "Blockchain technologies and its Application", Phase 1 and Phase 2	AICTE	4,03,333 Lakhs	2020-21

### 1. Sponsored Project Grants:

Sr no	Details	Consultancy	Grant/Funds received (INR)	Year
1	SwechchhaProject sponsored by MCGM.	BMC in association with Star Union Daiichi Insurance Company LTD	24 Lakhs	2020-21
2	Antenna Design	Indian  Navy with Aero marines Services	14,160	2020-21

**Initiative 2: Quality Improvement Initiative** 

### **Academia Industry Connect Programmes**

#### 1.International talk series:

Department of Instrumentation Engineering in association with VESIT-IQAC and VESIT-IIC conducted the Instru-International talk series from 7th to 12th September 2020 with international experts and alumni on various topics like machine learning and silicon design process to provide students new areas of technology expansion.

### 2.Tech-Xpert Talks:

VESIT Renaissance Cell (VRC) in association with VESIT - IQAC and VESIT - IIC organized "Tech-Xpert Talks: VESIT Academia Industry Connect Program", a National-Level Technical Talk Series in association with Industry partners of VESIT from July 22nd, 2020 to July 31st 2020 to provide insights into the emerging areas of technology and their applications in diverse sectors by Industry experts.

File Description	Document
Upload any additional information	<u>View Document</u>
Paste link for additional information	View Document

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities ( For first cycle - Incremental improvements made for the preceding five years with regard to quality For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives )

### **Response:**

**VESIT** has an effective teaching learning process and a well planned structure to review it through:

### A :- Curriculum

- 1. Allocation of subjects prior to the commencement of the academic year.
- 2. Preparation of Academic Administration Plan(AAP) through Academic calendar.
- 3. Conduction of the subject through proper mapping with the time table, lecture and lab plan, course objectives and outcomes as prescribed in the syllabus given by University of Mumbai.
- 4. Based on the subjects of the current semester a team of group advisors(GA), subject co-ordinators and subject teachers are formed by the academic coordinator.

- 5. Regular Subject Teacher meetings are conducted to plan, review and identify the need for further enhancement along with their respective group advisors (GA).
- 6. In addition to it, regular revision in the curriculum contents is done by staff members associated with MU syllabus revision committee based on the industrial requirements and feedback received by Industry experts.

### **B:- Teaching Learning Reforms:**

- 1. VESIT firmly believes in inculcating and nurturing good values in its students so that they become successful engineers and responsible citizens of the nation. Through its Induction program(First Year) and Mentor-Mentee Program, faculty advisors regularly interact with their students
- Institute continuously focuses on students' overall development in terms of achieving technical knowledge, skills development and professional societies activities conducted by ISA, CSI, ISTE and IEEE...
- 3. To sharpen their research skills, students are encouraged to participate in sessions conducted by Institute Innovation Council (IIC), Research Forum and Entrepreneurship Initiatives.
- 4.To prepare the students for facing the real world, they are trained through various placement activities such as Finishing school, Guest lecture sessions by Industry experts and inhouse FREE GATE coaching.

### **Periodical Review**

Prior to the formation of IQAC, VESIT had a well defined academic audit process consisting of Program Assessment Committee(PAC), Department Advisory Board (DAB) and Group Advisor committees.

Post IQAC formation, the academic and administrative quality benchmarks would be evaluated and audited through the proposed Academic Administrative Audit (AAA) committee.

To enhance the quality in academic and administrative domains, various IQAC initiatives are implemented to provide the best to the Stakeholders. Two examples are given below:

#### 1. Curriculum enhancement: Add on courses

Along with the curriculum, the focus is on overall skill development of the student through providing value added courses such as:-

### **VESIT** on Coursera

To hone the skills of the students, VESIT collaborated with Coursera-An Online learning Platform that offers self paced guided projects and on demand courses for the variety of subjects.

### 2. An Alumni Engagement Initiative : V-Reach

To enhance the association between the Alumni and VESIT students, alumni engagement initiatives through V-Reach webinar series have been undertaken. This program aims at reaching out to the alumni and enables sharing of their vast knowledge and experience with current students.

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

### 6.5.3 Quality assurance initiatives of the institution include:

- 1. Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements
- 2. Collaborative quality intitiatives with other institution(s)
- 3. Participation in NIRF
- 4.any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

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

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Upload details of Quality assurance initiatives of the institution	View Document
Upload any additional information	<u>View Document</u>
Paste web link of Annual reports of Institution	View Document

# **Criterion 7 - Institutional Values and Best Practices**

## 7.1 Institutional Values and Social Responsibilities

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

### **Response:**

VESIT strives to create a safe educational atmosphere for all. Well planned and appropriate awareness programs, and activities for creating a gender safe environment are tailored together as a step towards resolving this global issue at VESIT. Women hold significant teaching and administrative roles at our institute as well as in the student council with a male/female ratio of 1:0.5 in students.

### For achieving this goal, we have:

Safety and security: Campus has deputed trained security guards (both male and female) at key locations to ensure safety, and security. Identity cards are issued to everyone working in the campus, high-end CCTV cameras installed at strategic locations, availability of First-Aid boxes at office and all laboratories, full-fledged fire fighting system and suggestion box facility outside the Principal's office are a few steps taken to ensure safety and security in the institution. Strict screening and entry procedure at the main entrance of the campus and building for every visitor is mandatory. Women faculty members are always deputed to accompany girl students who participate in various co-curricular and extra co-curricular activities after college hours. Anti Ragging/Disciplinary Committee, Grievance Redressal Committee, Internal Complaint Committee are formed to resolve safety related issues. A Women Development Cell is also there to instill positive self-esteem and confidence in the female students so to make them self reliant. Sick room is available to both boys and girls during medical emergencies. Sanitary napkin vending machine is installed in the girls' washroom. The campus has separate hostels for girls and boys.

**Separate common room** is available for girls to relax and rest during breaks. Each floor has separate washrooms for girls and boys.

**Counselling:** Periodic counselling and empowering sessions for students and faculty to learn to deal with mental stress and emotional health are conducted by VES Leadership Academy and Research Centre. This equips the students with the skills to navigate their way through the world and to inculcate the values for emotional resilience. Counselling sessions on prior appointments, short talks, workshops, and training sessions for students, staff and parents are conducted regularly.

**Day-care centre and creche:** VESIT faculty can avail day care centre and creche facility instituted by parent society, VES. It provides a clean, hygienic, healthy and safe atmosphere to the children under the supervision of trained personnel.

**Grooming sessions:** For overall personality development of the students various programs are organized, e.g. Accenture Diversity Connect Program, Women Empowerment Program, Software Hackathon, Worklife balance, Financial Awareness etc. Under the flagship of the Women in Engineering initiative, a self-awareness and confidence-building workshop was conducted by IEEE.

Sports events: An annual intra-collegiate sports festival "Sphurti" is held to encourage sportsmanship,

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team spirit, collaboration and nurture their potential among both boys and girls. This includes many outdoor and indoor games. Winners are presented with different awards and certificates, this motivates students to excel and keeps their level of enthusiasm high.

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

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

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

**Response:** C. 2 of the above

File Description	Document
Geotagged Photographs	<u>View Document</u>
Any other relevant information	View Document

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

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

### **Response:**

At VESIT, students and staff are encouraged to follow waste management practices. One of the campaigns by the Government of India "Swachh Bharat Abhiyan" is also a priority in VESIT. Around 300 students participated in a clean up and beautification drive at Chembur station, Mumbai on 3rd March,2017.

### 1. Solid Waste Management:

- VES Zero Waste Campus Project: The VES trust office granted the permission for the implementation of the project for VES Campus, Chembur, Mumbai. Waste Audit was done for 2-3 days to estimate the quantity of Dry and Wet Waste. Items such as paper, plastic, metal, cloth, glass come under Dry Waste; whereas food waste and horticultural waste (biodegradable) comes under the category of Wet Waste. The Dry and Wet Waste generated in the college was measured. As per the volume of Wet Waste, the size and no.of compost pits is decided.
- VESIT has taken a great step towards Waste management by installing a **Composting Plant** where all the organic waste produced in canteen and gardening waste is converted to good quality manure which is used for in-house gardening.
- Awareness activity of innovative dustbins conducted by SoRT team on 3rd October, 2018. On the occasion of Gandhi Jayanthi and the Swachh Bharat Mission Day, the SoRT council organized a dustbin awareness drive in our college. To supplement the green movement, another criteria was that the dustbins were to be made out of waste materials. Several teams participated, each consisting of four members made some innovative and sustainable dustbins.

### 2. Liquid Waste Management:

Liquid waste is any form of liquid residue that is hazardous for people or the environment. It includes waste generated by washrooms, regular cleaning and mopping.

VESIT has set up a Sewage Treatment Plant (STP) for waste management.

#### 3. E-waste management:

- Used electronics goods can be reused, refurbished, recycled, properly disposed or considered as e-waste. In VESIT nonfunctional computers, monitors, printers, etc. are discarded on a systematic basis. E-waste is collected regularly by scrap dealers.
- SoRT VESIT organized E-waste collection drive with an aim to spread major awareness about the lesser-known hazards of electronic waste generated in our country from 7th to 8th February 2020

### 4. Waste recycling system:

- Organic wastes is recycled using composting plants and good quality manure is used for gardening.
- Washroom and toilet water is recycled in the Sewage Treatment plant and it is used for gardening.

### 5. Hazardous chemicals and radioactive waste management:

Chemistry is a course introduced for first year students and conduction of chemistry labs results in usage of hazardous chemicals like ammonia and other strong acids. These chemicals may have hazardous impacts on the environment and human health. Disposing such chemicals in wash basins is a general practice and may result in suffocation and bad impact on human health.

Thus, VESIT chemistry lab (Lab number 503) is equipped with a Fuming hood. Chemical fume hoods are intended to remove vapors, gases and dusts of toxic, flammable, corrosive or otherwise dangerous materials. They are one of the most important engineering controls in a lab.

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

### 7.1.4 Water conservation facilities available in the Institution:

- 1. Rain water harvesting
- 2. Borewell /Open well recharge
- 3. Construction of tanks and bunds
- 4. Waste water recycling
- 5. Maintenance of water bodies and distribution system in the campus

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

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

### 7.1.5 Green campus initiatives include:

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

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

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

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

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

**Response:** C. 2 of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Any other relevant information	View Document

### 7.1.7 The Institution has disabled-friendly, barrier free environment

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

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

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

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

### **Response:**

The institution believes in equity of all cultures and traditions, as is evident from the fact that staff and students belonging to different religions, castes and regions are working or studying harmoniously. With great enthusiasm we celebrate the contribution of great and eminent personalities. 'Vachan Prerna Diwas' to commemorate the birth anniversary of our beloved former President, Late Dr A.P.J Abdul Kalam,

celebration of coronation day of the great Maratha warrior king Chhatrapati Shivaji Maharaj as 'Shiv Swarajya Din', celebrate 'Samvidhan Divas' (Constitution Day) to name a few.

The tolerance towards cultural, regional, linguistic, communal, socio economic and other diversities in our institution can be seen through the celebration of festivities like Ganesh Utasav, Navratri, Satyanarayan Pooja, Eid which provides for an inclusive environment by bringing together students and staff with diverse backgrounds on a single platform.

Students celebrate the different festivals with joy and enthusiasm which implants social and religious harmony in their young mind. To represent the diverse cultures of our country India, we celebrate Traditional days, Music Day which include classical, qawwali,Indian rock, and Indian pop etc , and an annual day (UTSAV)where students and staff represent different cultures of India as per the theme provided.

VESIT helps the students from low income groups by providing them with various scholarships(61 Students had received a total amount of Rs. 10,93,043/- from different trust scholarships and 1152 students had received a total amount of Rs. 51,703,172/- from different Government scheme in academic year 2021). Our strong Alumni Association in collaboration with sahayog scholarship(contribution by current students and staff) jointly distributed 14 laptops to underprivileged students to facilitate online education during the pandemic.

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

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

#### **Response:**

VESIT conducts various activities that inculcate values. The institution is known for producing responsible citizens. VESIT celebrates Constitutional day on 26th November that sensitizes students and staff on responsibilities towards the constitutional values, rights, duties of citizens.

VESIT takes great pride in celebrating Republic day and Independence Day as national days to awaken constitutional values, rights, duties and responsibilities among students and staff. Flag hosting with the National anthem and oath of national integrity followed by distribution of sweets is the regular decorum of the programme.

We at VESIT consider the right to vote as an important duty of every citizen and encourage everyone to exercise their right to vote. In order to help our staff and students, the college declares a holiday on Voting day during Loksabha elections, State Elections and the Municipal Elections so that every student/staff casts their valuable vote.

VESIT also celebrates 12th of January, as National Youth Day to commemorate the birth anniversary of our patron saint Swami Vivekananda. National Youth Day, or Yuva Diwas, is celebrated to bolster spirit, determination, and perseverance in the young cadre of today with the aim to share the vital thinking of the Swami Vivekanand among the youth.

VESIT Literature Circle (VESLit), a part of VESIT, conducts an activity to encourage and create awareness among the students regarding the existence, causes and gravity of the threat posed by corruption.

VESIT has also conducted an activity as "Integrity Pledge" to be an active part of the "Eradicate Corruption - Build a New India" under CENTRAL VIGILANCE COMMISSION.

The Social Responsibility Team (SoRT), a part of VESIT, has also conducted Voting Awareness Campaign to highlight the importance of voting. SoRT has also conducted Traffic Vigilance Activity by conducting traffic monitoring and crowd management on various occasions to make people aware and responsible towards society.

VESIT has also adopted 5 villages under the Unnat Bharat Abhiyan and students and teachers work very enthusiastically on the project, providing for their needs and solving their societal issues. Altogether, VESIT sensitizes it's students and employees to the constitutional obligations in the truest essence.

File Description	Document
Link for details of activities that inculcate values necessary to render students in to responsible citizens	View Document

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

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

**Response:** B. 3 of the above

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

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

#### **Response:**

VESIT promotes ethics and values amongst students and faculty and to encourage the same, the Institution organizes National/International festivals as well as Anniversaries of the great Indian Personalities.

The monthly newsletter of the college, VESIT Connect, also publishes related works and encourages students to observe these events or share their experiences of these festivals.

VESIT celebrates the following days:

- Independence Day (15thAugust)
- Republic Day (26th January)
- National Librarian Day (12th August)
- Vachan Prerna Divas (15th October)
- Marathi Bhasha Diwas (27th February)
- International Yoga Day (21st June)
- Swachh Bharat Abhiyaan (2nd October)
- Teachers Day (5th September)
- National Science Day (28th February)
- National Youth Day (12th January)
- Constitution Day (26th November)
- Ganesh Chaturthi (as per Hindu calendar)
- Satyanarayana Pooja(3rd week of January)
- Eid and Sharad Navrathri

Every year the students and staff of the Institute are requested to attend flag hoisting followed by performances of the students on Republic Day and Independence day.

Emphasising on our culture and encouraging everyone to adhere to their roots, Marathi Bhasha Divas is celebrated in the college, wherein various facets of Marathi language are showcased in the form of essay, debate, drama, singing etc. Selected motivational dramas are also performed by students and staff.

National Youth Day is observed on 12th January to commemorate the birth anniversary of Swami Vivekananda. This day is celebrated as a traditional day where the VESIT family comes in traditional attire.

Teacher's Day is also celebrated on 5th September to commemorate the birth anniversary of Dr. Sarvepalli Radhakrishnan with great fervour. Teachers on completing 20 years of service are felicitated for their dedication towards the institute in a grand function. Special sessions are organised for teachers on the occasion of Teacher's Day followed by lunch.

Vaachan Prerna Divas is celebrated at VESIT in the remembrance of the birth anniversary of Dr. A.P.J. Abdul Kalam by giving awards to the best student users of the library.

National Librarian day is also celebrated in the remembrance of Dr S.R Ranganathan, National Professor of Library Science.

National Science Day is also celebrated on 28th February to honour our Nobel Laureate and great Indian Physicist Sir. C. V. Raman to innervate young minds and to impart scientific spirit.

The International Day of Yoga is another such Day that VESIT focuses on. Every year, it is celebrated by holding workshops for the students and staff members. It aims to raise awareness of the many benefits of practicing yoga.

Constitution Day is also celebrated on 26th November to sensitize the students on responsibility towards the constitutional values, rights, duties and responsibilities of citizens.

All festivals such as Ganesh Chaturthi, Saraswati pooja, Satyanarayan pooja, Navratri, Eid are also celebrated in the college.

File Description	Document
Link for Geotagged photographs of some of the events	View Document
Link for Annual report of the celebrations and commemorative events for the last five years	View Document

#### 7.2 Best Practices

7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

**Response:** 

#### **Best Practice 1:**

#### 1. Title of the Practice:

#### Looking Beyond Syllabus (LBS) - An Intra-Collegiate Project Competition

### 2. Objectives of the Practice:

- Aim of LBS is to expose the students to emerging technologies and encourage them to learn those technologies and provide opportunities to work as teams on multidisciplinary projects under the expert mentoring by a faculty member assigned to them.
- To infuse in the prospective technocrats the ability to apply technical knowledge acquired and experimentation skills to understand problems in the industry, academia and humanity at large and be able to develop practical solutions to them by establishing themselves as wholesome professionals in the field of technology.
- To prepare the students to use their skills thus acquired to provide a strong base for higher education and acquisition of knowledge to sustain a life-long career in related areas.
- Inculcate in students project based and experiential learning
- Sustainable development goals are kept in mind before announcing the competition

#### 3. The Context

#### **Contextual Features:**

- Project Proposal Presentation
- Project Presentation
- 3 levels of judging 1 in odd semester and 2 in even semester
- Mentor to each team is allocated from different department to give them the opportunity of working with expert in the chosen field faculty
- Final Competition and Declaration of Winner
- Annual year long activity

#### **Challenging Issues**

- To get a panel of judges from different areas of expertise (hardware and software) at the time of competition.
- Bringing together the students from different branches and academic years together to form composite teams with expertise in software and hardware practices.
- The project proposals should be unique and based on the theme announced.

#### 4. The Practice:

- LBS is inline with the Vision of VESIT, focuses on innovative practices to inculcate a tradition of socially conscious application of technology.
- LBS activity is strategically designed in terms of planning, implementation and their continuous improvement.
- Teams and mentors are required to fill online registration form for participation, the form is made available on the college website during the given window period.
- The teams competing must include a mix of developers and designers.
- If information provided during online registration is found to be incomplete and/or inaccurate, the entire team concerned will be excluded from the competition.

#### **Rubrics for Evaluation:**

Participants will be judged based on the following criteria:

- Direct relevance to the core problem/addressing the core problem to the society/ theme
- Uniqueness of the proposed solution
- Ease of implementation (e.g. feasibility of implementation of the idea within 6 months)
- Communication and presentation skills
- Team spirit
- In first round of elimination the teams present the proposal of the project to the panel of the senior

faculty members who judge the projects based on the novelty of the ideas proposed and feasibility.

- In second round the projects (generally held after an interval of 80-90 days) are judged by our experienced and expert alumni members, based on about 70 -80% completion of the project.
- The final round criteria for judgment is based on the conversion of this prototype into a final product. The judges are experts from industry. Cash prizes, vouchers and certificates are distributed to winning teams. All the teams participating in the third round and the mentors are given certificates to appreciate the efforts put in by them.

#### 5. Evidence of success

Looking Beyond Syllabus is a successful endeavour at VESIT that leads to enrichment of innovative practices. It has brought in significant positive change in performance of students in the following areas:

- Critical thinking (Thinking out of the box)
- Problem solving
- Converting the prototypes into real time applications or products.
- Working in teams
- Communication skills

QUANTIPHI, a company defining Applied AI and Machine Learning software and services sponsored four cash prizes for the winners 1st prize Rs.10000, 2nd prize Rs.7000 and 3rd prize Rs.3000. in the year 2018-19.

#### 6. Problems encountered and resources required

- The main problem encountered is to make the students meet the deadline for the completion of the
  project which has to be met in the three rounds of the competition, without neglecting their other
  academic activities.
- Logistics of organizing the meeting of students with their mentors is difficult due to the busy academic schedules of the mentors and the students.
- To make resources (hardware and software) available to the students on time.
- Duration of the project is eight months which is long enough to sometimes divert the attention of the students. During this period students have to give their internal assessment ,oral practical and end semester exams which makes it difficult for some students to concentrate and complete the project work.

#### **Best Practice 2:**

#### 1. Title of the Practice

#### **Campus to Corporate**

#### 2. Objectives of the Practice

- Strengthen placement and Career Counselling to improve employability of students and make them industry ready.
- Guidance for competitive examinations .
- Provide the students special training for eligibility, employability & resume building.
- Language Lab To conduct training for Soft Skills Development of students.
- Identify the individual skill set and help in career goals setting.
- Orientation program for Civil Services Exam Preparation.
- Higher studies guidelines
- Maintaining and updating databases of students and companies for establishing strategic links for campus recruitment.
- Organizing pre-placement training/workshops/seminars for students.

#### 3. The Context

The mission of the institute states to enable students to work towards excellence in their chosen fields with a professional bent of mind. Students who come to college are from different socio-economic classes of society, sometimes lack communication skills, command over English language and confidence to face the interviews. The institute relentlessly pursues to provide them with best possible grooming activities so that every student is not only academically nurtured and nourished; but should also be holistically developed.

The training and placement cell (T&P) aims at being an active catalyst in the smooth transition or metamorphosis of a student to a professional. In order to do so, the cell engages in activities for students in every semester / year. This step by step approach creates an awareness and enables them to manage change and adapt to the latest technology and corporate environment.

#### 4. The Practice

In-house workshops and activities conducted by T&P annually for UG and PG include:

**First Year:** Inputs during Induction regarding approach to studies, scope and outcomes, Integrated approach to engineering and application of technology

**Second Year:** Workshops on Eligibility, Employability, Impact of CGPI, Importance of Mini projects, Contents of Resume and Building your Resume, Career Guidance, Understanding Campus Recruitment Process and inputs to prepare for aptitude and technical test

**Third Year:** Workshops and activities on Skill set analysis, Interaction with Alumni /Corporate world, Steering the Interview, Understanding Transactional Analysis for Enhanced Communication

**Fourth Year:** Finishing School, IT for Non-IT, Mock Aptitude Test, Guidance and hand holding for placements and smooth joining process into the corporate world

Around 85+ companies recruited our students in the academic year 2020-21.

#### Brief description about some other activities conducted by the institute:

- **The Finishing School** concentrates on the foundation of fundamental subjects in the branch of study to correlate theory and practical knowledge.
- IT for Non-IT In the interviews of IT companies, questions regarding basics of programming and database are often asked to the candidates. These courses are not included in the regular curriculum of non-IT branches hence special sessions are conducted to provide an insight and understanding of the key concepts of IT topics to the students, which help them to cater the placement interviews of IT companies.
- **VESLit Circle**, is an extension of the language lab, to give further impetus to students who have great love and interest in English language and literature, which inturn can help to develop their overall personality.
- V-REACH- VESIT's Alumni Engagement Initiative- To enable knowledge and expertise sharing of alumni for professional development of students.
- Students Personality, Intellect & Creativity Enhancement (SPICE) was formed for MCA students to bridge the gap between the college syllabus and the placements. SPICE conducts aptitude tests, mock interviews, sessions by experts and alumni to make students understand the aptitude level of dream companies and prepare them for placements in both aptitude and interviews.

#### 5. Evidence of Success

After going through these training sessions the students felt more confident to face the interviews. All these were qualitative results and quantitative outcomes can be known only by comparing the performance of the present batch of students with previous batches. On an average 74 percent of the students are placed with respect to students who have registered for placement in the last three years.

Success of the efforts for student empowerment is reflected in figures. In academic year 2020-21 total students placed are 464 and students pursuing higher studies are 33. Highest compensation (CTC) for this year was 22 LPA and the average salary was 5.56 LPA.

#### 6. Problems encountered and resources required

- Effective and efficient scheduling of activities and sincerity in implementation.
- Students need extra efforts in core subjects like mathematics.
- For communication skill and soft skill upgrading, special trainers/ counselors are required.
- Evaluation of the success of these activities is difficult to estimate.

File Description	Document
Link for Best practices in the Institutional web site	View Document

#### 7.3 Institutional Distinctiveness

### 7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

#### **Response:**

#### **Institutional Distinctiveness**

#### Introduction

VESIT has established its distinctive approach towards fostering a learning culture conducive to the holistic development of the students. Over last 37 years, the stakeholders of VESIT have witnessed the most distinctive feature of the institution. Providing a conducive environment for the holistic development

of students. VESIT has been creating highly competent professionals, technocrats, entrepreneurs equipped with great values and ethics and social consciousness. VESIT strives to provide its students the necessary foundation through the following pillars i) Innovative Learning Practices, ii) Employability Enhancement, iii) Personality Enrichment iv) Social Responsibilities, which in turn makes our institute a leader in technical education.

#### VESIT-A leader in technical education

Established in 1984, VESIT is among the oldest private colleges in the country. We have been accredited twice by the National Board of Accreditation. VESIT has been Ranked by National Institute of Ranking Framework (NIRF)2021 in the band of 251-300. 1st RANK in Maharashtra State in Education World Private Engineering Institutes Rankings in 2018, 2019 & 2020 to mention a few achievements and awards. The details of awards and recognition are provided on the website (in the link given below).

VESIT handles societal inequalities with grace, we have no management quota, minimum fees structure and provide scholarship to the needy students.

VESIT can boast of having 17% of faculty members over 20 + years of teaching experience.

#### VESIT Fosters academic excellence and overall development through:-

- Established Institution Innovation Council (IIC)
- Ph.D Centre of University of Mumbai
- State of Art R & D Centre
- Hostel Facility
- Library has 49585 books
- Permanent Affiliation to University of Mumbai
- Competency Development Centre of Automation Industries Association (AIA)
- LabView Academy with National Instruments
- Sprawling Complex and Inviting Playground
- Training provided for Industries in the State of the Art Instrumentation Laboratory
- Zonal Partner with leadingindia.ai
- Innovation Lab with Accenture and D-Link Academy
- Aditya Jyot Eye Innovation Center
- E-Yantra Lab with IIT

- Oracle Academy
- Professional Societies of Students
- Big Data Analytics Lab with Cloudera, USA

#### **UN-PRME**

VESIT is a member of United Nations-PRME (Principles for Responsible Management Education) and working towards attaining the listed Sustainable Development Goals since 2015.

VESIT strives to provide its students the necessary foundation through the following pillars

#### 1) Innovative Learning Practices

VESIT focuses and strives to boost intellectual skills of all students by adapting innovative practices to inculcate a tradition of socially conscious application of technology. The institute postulates on quality education which includes programs like experiential and participative learning and problem-solving methodologies. Learning methods are focused on encouraging students to work in a team where they are accountable to each other in their learning process. It provides a way of solving problems encountered and teaches team spirit. The faculty members work towards strengthening the Academic Practices wrt Curriculum, Pedagogy, Assessment and Faculty Competence.

Our Institute encourage students to involve in more practical and project based activities by providing various strategies and techniques that includes: Self learning activities with mentors - Looking beyond syllabus project (LBS), Tinkerer's Lab activities, Awakening the Scientist program(ATS), Participative learning activities like Process Oriented Guided Inquiry learning (POGIL), VRC (VESIT Renaissance Cell) facilitating internships, Bridge courses, and online courses such as NPTEL,Spoken Tutorial,Coursera,Summer Winter Internship, Certification courses (Oracle, Cloudera, Microsoft (ATS) Courses) etc. and entrepreneurial (E-cell) activities. Industry Experts are also invited to deliver Skill Enhancement Lectures (SEL) and workshops for students and teachers.

#### 2) Employability Enhancement

Hand holding by our well established and experienced training and placement cell (T&PC) makes the path from campus to corporate easy for our students. In order to achieve this, the T&PC conducts a series of workshops/sessions/training to our students right from their first year. Finishing School, IT for Non-IT, special training for resume building, improving spoken and written communication guidance and preparation for competitive examinations and Civil Services Exams, pre-placement training, workshops, seminars for students are a few workshops and activities conducted by T&PC annually. V-REACH is a programme to enable knowledge and expertise sharing of alumni for professional development of students.

We have been witnessing 70%–80 % placements of the eligible and interested students, a few entrepreneurs in every batch and about 15%-30% of the students going for higher studies every year.

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#### 3) Personality Enrichment

VESIT identifies the strengths and weaknesses of each student and tries to improve them which helps in developing their overall personality that creates a strong positive sense and improves the culture of the institution. They are also encouraged to foster their managerial skills, soft skills, social skills and growth mindset including mental toughness. Student council, Music Council, sports council, cultural council, etc., Students are encouraged to organize and participate activities of professional societies-IEEE, ISTE, CSI and ISA, technical festival -PRAXIS, inter and intra-collegiate, Smart India Hackathon, Texas Instruments Challenge, E-yantra competition, Avishkar Inter University Competition, Toycathon, Swadeshi Microprocessor Challenges, project competitions, VESLit circle, photocircle, VES dance crew, music-Bliss, intra-collegiate, University sports-Sphurthi and VES premier league and cultural festivals-Illusions, and many more.

#### 4) Social Responsibilities

Social Responsibility Team (SoRT), a committee spearheaded by a group of enthusiastic students and faculty in-charges, is responsible for empowering the unprivileged and the society throughout the academic year. We believe there is nothing more heart-warming and fulfilling than being the reason for someone's smile. Cleanliness Drive, Plastic Waste and E-waste collection drives, Helping Mumbai Police during Ganesh Visarjan, Encouraging students to work for NGOs, village development - Unnat Bharat, adopting villages, Ek Bharat Sreshth Bharat, tree plantation drives, introducing Universal Human Values, Swachh Bharat, Blood donation, organ pledging, bone marrow donation etc, yoga for good health, Vigilance Awareness by Union Bank of India are a few activities in which our staff and students participate with great energy and enthusiasm.

#### Conclusion

VESIT always focuses and practices intensive and inclusive improvisation strategies according to the needs of students to facilitate their academic progress. It serves as a unique tenet that directs the Institute's de facto modus operandi which leads to appreciable, all-round performance by assuring global standards through holistic education and interdisciplinary research paving a way towards sustainable development

File Description	Document
Link for appropriate web in the Institutional website	View Document

### 5. CONCLUSION

#### **Additional Information:**

Not Applicable

### **Concluding Remarks:**

Institute has well defined mechanisms for effective planning and implementation of curriculum that provides diverse learning opportunities and multiple avenues for continuous staff and student development. The Research and Development cell is well equipped with state of the art hardware and software resources always ready to welcome interdisciplinary projects. VESIT follows rule based transparent and participative administrative practices. The Institution also has a transparent mechanism for timely redressal of student grievances/ prevention of sexual harassment and ragging. This makes VESIT a sought after destination for Engineering and MCA courses in Mumbai and surrounding areas. We are proud of our Alumni, who are also working as our ambassadors across the world.

In our mission for working towards excellence in chosen fields we are reminded of thoughts of Robert Frost, but I have promises to keep and miles to go before I sleep and miles to go before I sleep.