

# FOR 4<sup>th</sup> CYCLE OF ACCREDITATION

# **VELLORE INSTITUTE OF TECHNOLOGY**

KATPADI - THIRUVALAM ROAD 632014 www.vit.ac.in

# Submitted To

# NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL BANGALORE

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# 1. EXECUTIVE SUMMARY

# 1.1 INTRODUCTION

Vellore Institute of Technology was founded in 1984 as Vellore Engineering College by Dr. G. Viswanathan, a former Parliamentarian and Minister in the Tamil Nadu government. The Deemed to be University status was conferred on 19th June, 2001 by MHRD Govt. of India (No.F.9-2/99-U3. dt.19.6.2001). Currently, VIT has eco-friendly campuses in Vellore and Chennai spread across 563.65 acres. From its humble beginning of 180 students, the institution has grown exponentially to that of having 33,322 students and 1,744 faculty members in 2018-2019. VIT attracts students from all the states and union territories of India and 60 different countries owing to its academic excellence.

The institution had gone for the first cycle of NAAC accreditation in 2003 soon after becoming the Deemed to be University and second cycle in 2009. VIT underwent the third cycle of accreditation in 2015 and was rated as A grade with CGPA of 3.42.

Some of the significant achievements of the institution in the last five years are:

- Received letter of intent for Institution of Eminence(IoE) status under private institution category from MHRD
- Ranked No.1 in Atal Ranking of Institutions on Innovation Achievements(ARIIA-2019) among the private institutions
- Consistently ranked in Top 20 in NIRF ranking under University and Engineering categories since the inception of NIRF
- Ranked by Times Higher Education World University Ranking, in the 801-1000 for the last four years
- Ranked by QS World University Ranking, 801-1000 for the years 2019 & 2020
- In the Top 550 of the QS World University Ranking by Subject in 3 subjects: CS&IS, EEE and Chemistry in the year 2019
- ABET(USA) accreditation for 14 B.Tech Programs in Vellore and Chennai campuses
- MBA and BBA programs accredited by ACBSP(USA) and ACCA(UK)
- Web of Science(WoS) awarded the Research Excellence–Citation Award 2019 under the Private University category, based on the number of most cited papers published during the period 2012-2018
- Received University of the Year in 2016, Excellence in Faculty in 2017, Excellence in Internationalization of Education in 2018 and Excellence in Enabling Research Environment 2019 awards by the FICCI, New Delhi

### Vision

Transforming life through excellence in education and research

#### Mission

- World class Education: Excellence in education, grounded in ethics and critical thinking, for improvement of life
- Cutting edge Research: An innovation ecosystem to extend knowledge and solve critical problems
- Impactful People: Happy, accountable, caring and effective workforce and students
- Rewarding Co-creations: Active collaboration with national & international industries & universities for productivity and economic development

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• Service to Society: Service to the region and world through knowledge and compassion

#### **Core Values of the Institution**

- Student focus
- Strong ethics
- Striving for excellence
- Social development
- · Respect for all

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

## **Institutional Strength**

#### Strengths

- Qualified, committed and experienced faculty
- Meritorious students with high motivation
- Good faculty and student diversity
- Students centric teaching-learning pedagogy
- State-of –the art infrastructure
- Productive research culture
- National and International recognitions
- Strong partnership with Industry and International Institutions

#### **Institutional Weakness**

- · Limited International students and faculty
- Revenue generation through industry consultancy
- Commercialisation of Intellectual Property Rights
- Limited access to public funding for infrastructure development

### **Institutional Opportunity**

- Academia- Industry joint research and product development
- Solve community / societal problems and issues
- Development of online courses and programmes
- Alumni engagement
- Mentoring of other institutions in the region

#### **Institutional Challenge**

- Improving the international ranking
- Provide global experience to students
- Joint programmes with Industry
- · Resource mobilisation for sustained growth

# 1.3 CRITERIA WISE SUMMARY

#### **Curricular Aspects**

The institution undertakes major revision in the curriculum and syllabus for all its programmes, taking into account the evolving regional, national and global needs. This is carried out with detailed feedback from all the stakeholders.

- In 2015, the institution introduced the Curriculum for Applied Learning (CAL) to enhance higher order thinking capabilities of students
- Some of the salient points of the CAL curriculum as applied to the B.Tech programme are Project based learning in 40% of courses, One module of all the courses on latest developments, to be taught by industry experts, mandatory foreign language, Courses such as Technical Answers for Real-life Problems and Introduction to Innovative Projects to inculcate Design Thinking and Coding, Soft Skills courses and extracurricular activity as part of curriculum
- 63 programmes underwent revision in last 5 years
- The project based learning methodology enables application orientation and enhances the employability
- Laboratory components of the courses and mandatory six courses on soft skills contribute directly for skill development
- About 98% of courses have direct focus on employability/entrepreneurship/skill development
- The Fully Flexible Credit System (FFCS) adopted by VIT for all programmes provides flexibility in terms of choosing the pace, courses, faculty member and time slot.
- Students can register for courses across programmes to facilitate cross disciplinary learning
- About one third of the credits are chosen by students as electives
- Students have option to earn additional minor and honour credentials
- Students can enrol for courses under SWAYAM for credit transfer
- New courses are introduced every year & about 36% of the courses offered in last 5 years are new courses
- Courses on Ethics & Values and Environmental Studies are part of core courses
- In the last 5 years, 276 value added courses were offered and 87% of students had benefitted
- Mandatory 4 weeks of industrial internship for all B.Tech students
- In the AY 2018-19, 94% of students undertook field visit / research project / internship
- Feedback from different stake holders are collected, analysed and appropriately implemented while revising the curriculum and the course content

# **Teaching-learning and Evaluation**

Highly qualified faculty members remain the backbone of all the developmental trajectory of VIT. The diversity of faculty members and their unrelenting focus on teaching and research enable to realise the high requirements of modern day teaching-learning process.

- The strong feature of VIT is its ability to attract quality students in large numbers from all over India and select parts of the world
- The average demand ratio in last five years for admission is 20.17
- The Fully Flexible Credit System(FFCS) permits slow learners to register for less credits and advanced learners to register for more credits
- With 40% of courses following Project Based Learning pedagogy, the emphasis of the teaching-learning process is on enhancing the learning experience
- 100% ICT enabled classrooms, in-house learning management system and wide exposure to various digital tools, enable all faculty members to practice ICT enabled effective teaching
- About 20 students are assigned to a faculty member for mentoring (Proctor Scheme)
- The Proctors provide academic and personal mentoring and monitor progress
- The faculty requirement is analysed and recruitment is carried out every semester
- VIT has faculty strength of 1744 and the faculty-student ratio is 1:19.11
- Currently, 78.3% of faculty members are with Ph.D. qualification
- The average experience of faculty members at VIT is 7.65 years
- More than 450 faculty members received awards, recognitions, fellowships at State, National and International level in the last 5 years
- The institute has computerised all the examination related processes which has resulted in transparency, efficiency and reduced lead time for publication of results (within two weeks)
- The significant examination reforms include, open book and open note-book examination, paperless examination using tablets, enabling cloud based evaluation and paper seeing
- The institute follows outcome based teaching-learning process since its first ABET accreditation
- The Programme Outcomes, Programme Specific Outcomes and the Course Outcomes are well-defined and are reflected in the teaching methodologies, course delivery and assessments
- The course and program outcome attainment levels are continuously evaluated, analysed and corrective actions are carried out
- The overall graduation in 2018-19 is 94.56%

#### **Research, Innovations and Extension**

One of the distinguishing features of VIT is its success in establishing a culture of Research and Innovation. This is clearly demonstrated by its high h-index of 102 and top rank among private institutions in the Atal Ranking of Institutions on Innovation Achievements (ARIIA-2019). Some of the key aspects of the institution's performance in Research, Innovation Ecosystem and Extension are:

- VIT has a well-defined research promotion policy and provides seed money to faculty members to conduct preliminary studies on various research ideas
- 71% of schools of the institution recognised by funding agencies such as DST-FIST, DBT, ICSSR, ICMR
- VIT Technology Business Incubator (VIT-TBI) was established in March 2003 with funding assistance from DST and supports Innovative Technology start-ups
- The institution has been using Turnitin software for plagiarism check since 2009
- VIT has 203 vibrant clubs and chapters that facilitate active co-curricular student life
- The Centre for Sustainable Rural Development and Research Studies (CSRD&RS) takes care of outreach activities of VIT
- VIT had played lead role in projects like Clean Vellore Project, Clean Palar River, Green Vellore Project, Village Resource Centre, Village Knowledge Centre, Swachh Bharat and Vellore smart city

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- Some of the tangible research and extension outputs in the last five years are
  - Enrolment of 426 JRFs, SRFs and research fellows
  - 16 research projects of sanctioned value Rs. 630.40 lakhs from non-government agencies
  - 299 research projects of sanctioned value Rs. 7,268.18 lakhs from government funding agencies
  - Successful incubation of over 25 start-ups
  - o 298 Patents published / awarded
  - 1,155 Ph.D degrees awarded
  - Total number of Scopus Indexed journal publications is 13,206
  - Total number of Books, Book Chapters and Conference Publications is 9,035
  - The current Scopus 'h' index of the Institution is 102
  - Scopus Citation index is 5.91 per paper
  - Scopus i-10 index 4,054
  - Revenue generated from consultancy and corporate training is Rs. 292.40 lakhs
  - 445 extension and outreach programmes conducted with about 77.6% of students participation
  - 113 functional MoUs with institutions, other universities and industries

## **Infrastructure and Learning Resources**

VIT is functioning from two campuses in Vellore and Chennai spread over 563.65 acres of land. The total build up area is 7,72,653 sq.m. It has a well-developed infrastructure in terms of green buildings for academics, hostels, library, laboratories, sports and IT facilities.

- The physical infrastructure includes
  - Number of class rooms: 375
  - Number of seminar halls: 19
  - Number of laboratories: 341
  - Play field area Out door: 1,32,606.40 sq.m
  - Play field area In door: 13,964.59 sq.m
- Class rooms and seminar halls are equipped with ICT facilities including smart boards, over head projectors and Wifi access
- On an average, the annual expenditure on infrastructure augmentation is Rs. 15,410 lakh
- Central library has a build-up area of 9797.80 sq.m and fully airconditioned
- The library functioning is automated using an automated library management system platform 'Koha'
- Issue and return of book are automated using RFID
- VIT spends around Rs.614 lakh anually, for books and journals
- The library e-resources can be accessed remotely
- Smart Row Data Centre with 10 Smart Row Racks, 3 Libert CRV In-Row Cooling Solution
- A centralized server is operational 24/7 to provide uninterrupted IT services with an internet connectivity of 12.155 Gbps bandwidth
- Computer student ratio is 1: 4.02
- An average annual budget of Rs.1,787 lakh year, provided on improving the IT infrastructure
- Studio with state of the art hardware and software for video and audio recording and editing, for econtent development
- Impartus lecture capturing system installed in 11 smart class rooms
- On an average Rs. 1,347 lakh and Rs. 9,700 lakh spent on maintaing academic and physical facilities respectively
- Well established policy procedues are in place for maintaining the various infrastructural facilities

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

The Institution has established and sustains a strong support structure for the successful progression of students during their student days. The following offices of the institution facilitate this objective.

- An exclusive student welfare department to provide proctoring & counselling, guide the students clubs & chapters and address all student concerns & grievances
- International Relations office taking care of international students, student exchange and semester abroad programme.
- Physical Education department to motivate all students to participate in sports and to train students in various sports
- A placement and training office taking care of Placement, Internship & Training of students
- A registered alumni association with its own set of office bearers to establish and nurture the alumni network

Some of the significant outcomes of the student support activities over the last five years are:

- Average of 35.74% of students benefitted by scholarships and freeships provided by institution in the last five years
- 62.71% of students have benefitted through various capability enhancement schemes offered by the institution
- Transparent mechanism for timely redressal of all academic and non-academic grievances of students including sexual harassment and ragging
- A team of 13 professional counsellors take care of students' psychological well-being
- An average of 50.87% of students got campus placements during the last five years
- 719 companies visited the institute for campus placement during 2018-19
- About 12% of students of the 2018-19 passed out batch are pursuing higher studies
- 49 awards and medals for outstanding performance in sports/cultural activities at national / international level in the last 5 years.
- Students are encouraged to participate in various national and international technical and other cocurricular events with partial financial support
- Effective student council with good representations in academic and administrative committees/bodies
- 203 active student clubs and chapters
- Every year the institute organises international technical festivals (GraVITas & TechnoVIT) and international cultural festivals (Riviera & Vibrance)

#### Governance, Leadership and Management

The institution is committed towards its vision of "Transforming life through excellence in education and research" and adopts professional approach in governance. All the statutory bodies of the institution are fully functional and take timely decisions on all policy matters.

- Institution encourages the inclusive engagement of faculty members in decision making, implementation and monitoring of all its activities
- Decentralization and participative management in all domains of activities
- VIT has established exclusive software development cell (SDC) to bring in e-governance in all domains

of its activities

- A total amount of Rs.7587 lakhs was spent on e-governance implementation in the last 5 years
- The institution recognises the service and dedication of the faculty and staff and has rolled out several welfare measures for their benefit
- Faculty members are encouraged to attend professional development programmes with financial support
- For faculty and staff members, 134 training programmes have been organised during the last 5 years
- On an average, 80% of the faculty members attend professional development programmes
- A transparent annual performance appraisal system is followed for teaching and non-teaching staff
- The institute is financially stable and takes conscious efforts to enhance funding through research projects, consultancy and alumni contribution
- Internal audit and external statutory audit are conducted regularly and audit objections are addressed
- A total amount of Rs.411 lakh and Rs. 311 lakh has been received from government and non-government agencies respectively for infrastructure development in the last 5 years
- Since its establishment in 2007, VIT-IQAC strives to attain excellence in all academic and administrative endeavours
- Significant outcomes of IQAC initiatives are:
  - Accreditation NAAC, ABET, ACBSP, ACCA
  - National Ranking NIRF, ARIIA
  - International Ranking/Rating QS, THE, QS BRICS, QS STAR
  - Received letter of intent for "Institution of Eminence" status by MHRD
  - UGC Graded autonomy
  - Submission of All India Survey for Higher Education (AISHE)
  - Promoting Technology Enhanced Learning MOOC
  - Swachh Bharat Summer Internship Program
  - Swachhta Ranking
  - Promotion of Quality Circle
  - Annual Quality Assurance Report
  - Feedback from stakeholders

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

VIT believes in promotion of gender equity, diversity and sustainable practices and had taken many policy initiatives in this direction. Some of the significant initiatives are listed below.

- 48 programmes with emphasis on gender equity were conducted in the last 5 years
- Digital security and surveillance systems covering all parts of the campus to ensure 24x7 safe working environment
- Common room for female students and staff in all academic blocks
- Solar power panels with the installed capacity of 1,113 kW
- More than 50% of lighting power met through LED bulbs
- Solid waste management by using compost technique
- A comprehensive rain water harvesting system is implemented and 100% harvesting is ensured
- 90% of used water is recycled and reused for secondary applications
- Single use plastics free campus
- Green cover facilitated by efficient use of water resources, improves the campus microclimate and reduces summer time shade temperature by 3° C
- Use of personal motorised vehicles by resident students prohibited and use of bicycles encouraged

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- Covered walkways and pedestrian-vehicular segregation facilitate safer working environment
- About Rs. 400 lakh per year spent for green initiatives and waste management in the last 5 years
- About 35 initiatives taken to engage with and contribute to local community
- The institute organises national, international festivals and anniversaries of great Indian leaders
- The institution maintains complete transparency and standardised operating procedures in its financial, academic, administrative and support functions
- Some of the best practices followed are:
  - Fully Flexible Credit System (FFCS)
  - Semester Abroad Programme
  - UG Research culture
  - Strong Industry-Institute Integration
  - 10 different languages offered
  - International placement
  - 203 functional Student Clubs and Chapters for overall development
  - STARS fully funded education for economically challenged students
  - Start-up and IPR culture with TBI and IPR Cell
  - Cashless financial transactions ensures transparency
  - Budget based expenditure with autonomy to Directors and Deans
  - Extensive digitisation of all academic, research and administrative processes
- Inculcation of Research Culture at grassroots level is the most distinctive character of VIT

# 2. PROFILE

# 2.1 BASIC INFORMATION

Name and Address of the University					
Name	VELLORE INSTITUTE OF TECHNOLOGY				
Address	Katpadi - Thiruvalam Road				
City	Vellore				
State	Tamil Nadu				
Pin	632014				
Website	www.vit.ac.in				

Contacts for Communication							
Designation	Name	Telephone with STD Code	Mobile	Fax	Email		
Vice Chancellor	Anand A. Samuel	0416-2243091	9566656773	0416-224309	iis@vit.ac.in		
IQAC / CIQA coordinator	Kuppan P	0416-2202181	9443628085	0416-224041	dydirector.iqac@vi t.ac.in		

Nature of University	
Nature of University	Deemed University

Type of University	
Type of University	Unitary

Establishment Details				
Establishment Date of the University	19-06-2001			
Status Prior to Establishment,If applicable	Affiliated College			
Establishment Date	27-09-1984			

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Recognition Details						
Date of Recognition as a University by UGC or Any Other National Agency :						
<b>Under Section</b>	Date	View Document				
2f of UGC						
12B of UGC						

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

Location,	Area and A	activity of Ca	ımpus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.	Program mes Offered	Date of Establishment	Date of Recognition by UGC/MHRD
Main campus	Katpadi - Thiruv alam Road	Rural	371.52	545087.9	B.Tech. B.Des. B.Arch. B.Sc. BCA BBA B.Com M.Tech. M.Des. MBA MCA M.Sc. Ph.D.		
Off Campus	Vellore Institute Of Tech nology - Chennai (off Campus ) Vandal ur-kela mbakka m Road Chennai - 600127	Rural	192.13	227565	B.Tech. M.Tech. MBA MCA B.A., LL.B BBA., LL.B Ph.D.	01-06-2010	06-06-2013

# 2.2 ACADEMIC INFORMATION

Furnish the Details of Colleges of University

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

Is the University Offering a Regulatory Authority (SRA	: Yes	
SRA program	Document	
AICTE	102086 4764 1 1581331710.pd f	
BCI	102086 4764 8 1581331716.pd f	
COA	102086 4764 18 1581331720.p df	

# **Details Of Teaching & Non-Teaching Staff Of University**

Teaching Faculty												
	Professor			Associate Professor				Assistant Professor				
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned				256				520				968
Recruited	195	61	0	256	358	162	0	520	591	377	0	968
Yet to Recruit				0				0				0
On Contract	0	0	0	0	0	0	0	0	0	0	0	0

Non-Teaching Staff							
	Male	Female	Others	Total			
Sanctioned				727			
Recruited	593	134	0	727			
Yet to Recruit				0			
On Contract	0	0	0	0			

Technical Staff							
	Male	Female	Others	Total			
Sanctioned				362			
Recruited	342	20	0	362			
Yet to Recruit		1		0			
On Contract	0	0	0	0			

# **Qualification Details of the Teaching Staff**

	Permanent Teachers									
Highest Qualificatio n	Professor				Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	189	61	0	352	161	0	384	220	0	1367
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	6	0	0	6	1	0	207	157	0	377
UG	0	0	0	0	0	0	0	0	0	0

	Temporary Teachers									
Highest Qualificatio n	Professor				Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	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	116	79	0	195
UG	0	0	0	0	0	0	0	0	0	0

	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/ LLD/DM/M CH	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
UG	0	0	0	0	0	0	0	0	0	0

# Distinguished Academicians Appointed As

	Male	Female	Others	Total
Emeritus Professor	0	0	0	0
Adjunct Professor	290	16	0	306
Visiting Professor	14	7	0	21

# Chairs Instituted by the University

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

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

Programme		From the State Where University is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	3579	16268	499	377	20723
	Female	1500	3207	174	108	4989
	Others	0	0	0	0	0
PG	Male	674	1671	4	26	2375
	Female	423	1174	3	16	1616
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	939	986	41	7	1973
	Female	771	518	5	2	1296
	Others	0	0	0	0	0

Does the University offer any Integrated Programmes?	Yes
<b>Total Number of Integrated Programme</b>	4

Integrated Programme	From the State where university is located	From other States of India	NRI students	Foreign Students	Total
Male	1090	1145	0	3	2238
Female	769	607	4	1	1381
Others	0	0	0	0	0

# **Details of UGC Human Resource Development Centre, If applicable**

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

# **Accreditation Details**

Cycle Info	Accreditation	Grade	CGPA	Upload Peer Team
				Report
Cycle 1	Accreditation	B+	77.9	
				NAAC Peer Team
				Report 2003.pdf
Cycle 2	Accreditation	A	3.25	
				NAAC Peer Team
				Report 2009.pdf
Cycle 3	Accreditation	A	3.42	
				NAAC Peer Team
				Report 2015.pdf
Cycle 4	Accreditation	A++	3.66	

# 2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report		
School Of Advanced Sciences	<u>View Document</u>		
School Of Architecture	View Document		
School Of Bio Sciences And Technology	View Document		
School Of Chemical Engineering	<u>View Document</u>		
School Of Civil Engineering	View Document		
School Of Computer Science And Engineering	View Document		
School Of Electrical Engineering	<u>View Document</u>		
School Of Electronics Engineering	View Document		
School Of Hotel And Tourism Management	View Document		
School Of Information Technology And Engineering	View Document		
School Of Mechanical Engineering	<u>View Document</u>		
School Of Social Sciences And Languages	View Document		
Vit Business School	View Document		
Vit Fashion Institute Of Technology	<u>View Document</u>		
Vit School Of Agricultural Innovations And Advanced Learning	View Document		
Vit School Of Design	View Document		
Vit School Of Law	View Document		

# **Extended Profile**

# 1 Program

### 1.1

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

2018-19	2017-18	2016-17	2015-16	2014-15
79	75	75	70	69

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

#### 1.2

# Number of departments offering academic programmes

Response: 17

# 2 Students

# 2.1

# Number of students year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
33322	30680	29267	28077	26330

File Description	Document
Institutional data in prescribed format	View Document

#### 2.2

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

2018-19	2017-18	2016-17	2015-16	2014-15
8287	7250	7541	7986	6934

File Description		Docun	nent	
Institutional data in prescribed form	at	View 1	<u>Document</u>	

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### 2.3

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

2018-19	2017-18	2016-17	2015-16	2014-15
31793	30520	27359	27862	25674

File Description	Document
Institutional data in prescribed format	View Document

### 2.4

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

2018-19	2017-18	2016-17	2015-16	2014-15
68	92	152	159	98

# 3 Teachers

### 3.1

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

2018-19	2017-18	2016-17	2015-16	2014-15
2066	2071	2035	1658	1515

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

#### 3.2

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

2018-19	2017-18	2016-17	2015-16	2014-15
1744	1633	1622	1593	1548

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

### 3.3

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

2018-19	2017-18	2016-17	2015-16	2014-15	
1744	1640	1632	1608	1556	

File Description	Document
Institutional data in prescribed format	View Document

# 4 Institution

# 4.1

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

2018-19	2017-18	2016-17	2015-16	2014-15
242706	261990	250266	243418	241854

File Description	Document
Institutional data in prescribed format	View Document

## 4.2

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

2018-19	2017-18	2016-17	2015-16	2014-15
3335	2862	2833	2707	2897

File Description	Document
Institutional data in prescribed format	View Document

#### 4.3

Total number of classrooms and seminar halls

Response: 394

#### 4.4

Total number of computers in the campus for academic purpose

Response: 8293

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

4.5

2018-19	2017-18	2016-17	2015-16	2014-15
42964.11	46523.89	71011.31	27093.65	16842.85



# 4. Quality Indicator Framework(QIF)

# **Criterion 1 - Curricular Aspects**

# 1.1 Curriculum Design and Development

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

#### **Response:**

The curriculum of all programmes is developed in accordance with the Programme Educational Objectives (PEO) and Programme Outcomes (PO), which in turn are in tune with the mission statements of the University. The process of developing the curriculum and the course content takes into consideration the feedback from different stakeholders, including academic and industrial experts, and ensures that it has relevance to the local, regional, national and global developmental needs. The curricula and course content thus framed are recommended by the Board of Studies and subsequently approved by Academic Council. An overview of the contribution to the developmental needs at various levels is given below

#### Local and regional developmental needs

There are several courses in different programmes which enable students to analyse the local and regional needs and provide solution based on their engineering / science / management / law knowledge acquired. This opportunity, at the same time, gives the students a real-life experience. The project component embedded in specific courses gives leverage to the students to involve in the developmental activities of Vellore/Chennai, in terms of its transition to smart cities. Substantial field work in the surrounding villages paves way for the analysis of physical and socioeconomic factors that influence the development and future growth of the city (eg. Course on Urban transformation, Rural studio). In addition, the courses also assist in creating students' awareness of protecting the heritage structures. Many extension and economic courses for the students of Agriculture involve interaction with the farmers, government agencies in and around Vellore, to uplift productivity. Students are often challenged with the problems faced by small scale industries (through Make-a-thon activities related to a variety of courses) and are enthused to provide relevant scientific solutions. Courses that encourage and enhance the family business (eg. Managing Family Business) also assist in uplifting the socio-economic status of the region. The eighth module in many courses bring in expertise from industry. In addition industrial visits expose the students to real-world problems.

#### National and global developmental needs

In tune with the national and global developmental needs, the institute has introduced several new programmes in the areas of Internet of Things, Data Science, Data Analytics, Cyber Security, Artificial Intelligence and Machine Learning, Cyber Physical Systems and others. Additionally, several courses are aimed at enhancing the technical and entrepreneurship skills (eg. Lean Startup Management, TARP) of the students, that are in sync with Start-up India policy. This enhances the employability skills of students. Courses that are in-tune with the national mission of 'Make-in-India' pave way for the economic growth of the nation. Aligned with the Digital India mission, courses related to latest computer languages like Python/ PERL are made compulsory for all programmes. Courses on renewable energy, climate change

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and environmental effects are also offered to sensitize the students to global health. In addition, a range of co-curricular and extra-curricular activities (mandatory as part of the curriculum) are aligned with the overall development of the student, which has an impact on the national and global developmental needs.

File Description	Document
Upload Additional information	View Document

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

Response: 94.52

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

Response: 69

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

Response: 73

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

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

Response: 97.84

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

2018-19	2017-18	2016-17	2015-16	2014-15
1613	1804	1758	1468	1471

File Description	Document
Programme/ Curriculum/ Syllabus of the courses	<u>View Document</u>
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

# 1.2 Academic Flexibility

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

Response: 35.92

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

Response: 1292

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

Response: 3597

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

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

Response: 100

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

Response: 79

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

#### 1.3 Curriculum Enrichment

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

#### **Response:**

The institute ensures integration of relevant cross cutting issues in the curriculum of all the programmes offered. Some of these courses are mandatory requirement for graduation. Taking advantage of the Fully Flexible Credit System (FFCS), students of other programmes can register these courses (under Open Elective category). Additionally, VIT admits students from all regions of India and from several countries abroad. The peer and group learning, extra-curricular courses act as melting pot cutting across age, gender, nationality not only to absorb but also to respect other cultures. Following are some of the specific information that relates to the above requirement.

#### Gender

As part of the Ethics and Values course, students are required to address the issues related to women empowerment, female foeticide prevention, child abuse, responsible living and others. Rallies and street plays, involving students, address gender related issues. As part of Law programmes, courses on 'Right to Education – Women, Minority, Equality and Environment', 'Gender, Caste and Law' and others are offered.

#### **Environment and Sustainability**

Environmental Science is a mandatory course in all the undergraduate programmes. Apart from this, courses on 'Environment Impact Assessment', 'Environment Quality Monitoring', 'Environmental Audit' and several others address the issues related to Environment and Sustainability. Students are involved in green auditing of the campus and keep track of carbon footprint of the campus. As part of the course, events such as Water Conservation Week and Energy Conservation Week are organized every year so as to sensitize the campus on the sustainable developmental strategies. The students of architecture have courses on using natural and sustainable resources in their curriculum. The organic cultivation for students of agriculture showcase the importance of nature in Agriculture.

#### **Human Values and Professional Ethics**

Course on Ethics and Values is mandatory for all the undergraduate students. In addition to this, other courses such as Bioethics, Corporate Ethics, Business ethics, Media Ethics are incorporated in the curriculum of relevant programmes. Topics on manners and etiquettes are covered in courses related to soft

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skills.

VIT has made the participation of students in extra-curricular activity as a mandatory requirement for graduation. At present 90 clubs and 53 chapters are available for students. Students can register in any one of these clubs / chapters, depending on their interest and undertake activities related to the chosen field and in many instances the students extend their support to the social cause and create awareness related to gender and address issues related to sustainable living. Visit to orphanages, as part of their extracurricular activity, make the students to respect the human values and make them understand the moral social responsibility. As part of the course, section of students contribute to the NCC and NSS schemes. In general, participation in these extra-curricular activities promotes gender equity, facilitates team work, enhances leadership skills, builds confidence, personal social responsibility and enables the students to face the challenges in the future workplace, as these mould them to be holistic individuals.

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

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

Response: 265

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

Response: 265

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

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

Response: 87.01

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

2018-19	2017-18	2016-17	2015-16	2014-15
31015	26869	24965	23215	22747

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

Response: 93.95

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

Response: 31305

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

# 1.4 Feedback System

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

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

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

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

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

File Description	Document
URL for feedback report	View Document
Institutional data in prescribed format	View Document

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

### 2.1 Student Enrollment and Profile

# 2.1.1 Demand Ratio (Average of last five years)

Response: 20.17

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

2018-19	2017-18	2016-17	2015-16	2014-15
12360	13128	12308	11952	11775

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

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

Response: 100

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

2018-19	2017-18	2016-17	2015-16	2014-15
3335	2862	2833	2707	2897

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

# 2.2 Catering to Student Diversity

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

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#### **Response:**

#### Assessing learning levels of students

VIT has a robust and dynamic mechanism of assessing the learning levels of the students. On admission to various programmes, the students undertake a Computer Based Test (CBT) which assesses the English language proficiency. Based on the performance of students, a series of non-credit English Language bridge courses are offered to students with low proficiency. After completion of these courses, the credit course on English is offered. This enables the institution to address the difficulties of students who had their studies in vernacular medium. Since students with diverse mix of courses taken in the qualifying examination are being admitted to various programmes, customized bridge courses such as Introduction to Life Sciences, Basic Mathematics, Introductory Biology, Anatomy and Physiology, Life Science for Biomedical Engineers and Agricultural Heritage are offered as applicable.

#### **Special initiatives for Slow Learners**

Students scoring less than 50% in the first Continuous Assessment Test I (CAT-I) are classified as slow learners. A provision is available in the institutional LMS to faculty member to upload the required material for slow learners, and a follow-up action is also taken in the form of additional classes, tutorials, and assignments.

The fully flexible credit system followed in the institution facilitates the students to pace their learning. Slow learners can register for the minimum number of credits and complete the program in their own pace. The mentors play a crucial role of guiding the students in this regard.

#### **Special Programs for Advanced Learners**

Opportunities exist for students to complement and enhance their learning experience by crediting additional courses in diverse areas. Students having more than 8.5 CGPA are eligible for *Minor or Honours credential*. Students who score more than 8.5 CGPA are generally classified as advanced learners. The advanced learners can secure additional 15 credits in any specialization and earn a *Minor Credential*. Students can also choose additional 15 credits in their program of study and earn an *Honours Credential*. Students who earned more than 9.0 CGPA are exempted from attendance so as to focus on research and other academic activities to boost their career. The institute also facilitates research at the undergraduate level and enables students to earn credits by registering for Undergraduate Research Experience (URE). The regulation also permits students to complete the theory/lab credit requirements in advance, so that they can do their capstone project as Semester Abroad Program (SAP) or in industries. The vibrant set of student clubs and chapters of Professional Societies provide advanced learners to have hands - on experience in various domains of their choice.

# **Slow Learners**



**Computer Based Test (CBT)** 



**Bridge courses** 



Soft Skills training as part of curriculum



Special classes for slow learners



**Mentoring for slow learners** 



**Arrear Examinations** 

# **Advanced Learners**



**Minor or Honours credential** 



Undergraduate Research Experience (URE)



Semester Abroad Program (SAP)



National and International Exposure

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

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

Response: 19:1

# 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:**

VIT introduced Curriculum for Applied Learning (CAL) in 2015. The main objective of CAL is to emphasize student centric methods. The importance of student-centric methods and the three principal

learning modes are given due weightage in planning the curriculum and this aspect is made a regular component in majority of the courses. Most of the core courses have either a regular laboratory or project component as part of the course.

**Participatory Learning:** Active Learning Methods (ALMs) like Group Discussions, Workshops, Assignments, Technical clubs, Hackathon etc. help the students whose learning style is in sync with Participatory Learning. Students are also encouraged to carry out the projects in groups. The group projects provide an opportunity for the students to learn with their peers, encourage team work and also instil self-confidence. Every course at VIT has been designed in such a way that students actively interact with faculty.

**Experiential Learning:** Most of the core courses have either a regular laboratory or project component as part of the course. In CAL, the students have an opportunity to "Learn by doing" in at least 60% of the courses. This can be either through conventional laboratory or project based learning. The system at VIT utilizes various techniques like simulations, demonstrations, case studies, etc. in the implementation of experiential learning. Such hands-on experiential learning enhances the technical skill sets of the students at VIT.

**Problem Solving Methodologies:** The teaching-learning process at VIT, incorporates some mandatory innovative courses blended in the curriculum. Under-graduate engineering students should undergo courses like "Technical Answers to Real World Problems (TARP)", "Introduction to Innovative Projects (IIP)" and "Lean Start-up Management (LSM)". Students are expected to register for TARP course in the prefinal / final year. The objective of this course is to identify real life problems and use engineering principles / technologies to address the problem. The solution is expected to be in the form of fabrication / coding / modelling / product design / process design / relevant scientific methodologies. While solving the problems, students are expected to take care of technical, economic, social, environmental, political and demographic feasibility.

The course on "Lean Start-up Management" helps the students to identify business opportunities that utilise their technical expertise. The student should propose a business model/plan and also explore the various funding opportunities for such ventures. The student is made aware of legal, regulatory, corporate social responsibility and tax related issues. The course on "Introduction to Innovative Projects" aims to develop innovative thinking skills and helps in building confidence to handle day-to-day issues. These courses in the curriculum enhance the learning experience of the students.

With the apt combination of ICT and these Active Learning Methods, the teaching learning process at VIT is entirely student centric, which is the sole aim of Outcome Based Education (OBE).

STUDENT CENTRIC METHODS				
Fully Flexible Credit System (FFCS)™	Curriculum for Applied Learning (CAL)™  Overseas Experiential Learning Programme (OELP)  Professional Student Clubs			
Project Based Learning (PBL)	Challenging Experiments in Laboratories	Industry based Hack a thons / Make a thons etc. part of curriculum	TARP (Technical Answers to Real-world Problems)	
Lean Start up Management (LSM)	Testing of Higher Order Thinking Skills (HOTS)  Research Orientation from UG level (URE) Mathematics taught in labs using MATLAB			
Major / Minor specialization  Every theory Course has 8th Module Industry Lecture, Capstone Project in Industries, Placements, Internships, Joint Seminars & Work Shop				

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

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

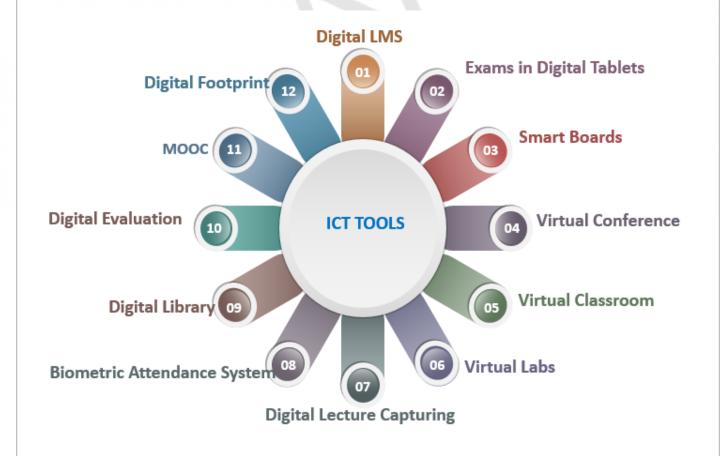
#### **Response:**

The learning characteristics of the current generation students are increasingly inclined towards digital, web and mobile based technologies. In view of recent advancements in ICT, the teaching learning process at VIT has been realigned and redefined, so that it facilitates the implementation of all types of educational learning theories and delivery models that support and encourage innovative teaching and learning modalities, both for theory and lab courses. VIT has taken care of integration of ICT in education, inter alia, does promote autonomous learning, student-centered learning, higher order thinking, problem solving, cooperative learning, collaborative learning, social learning and self-paced learning and finally, integrated learning.

VIT has developed an indigenous Learning Management System (LMS) called V-TOP and most of the teaching learning process tools have been integrated into it. VIT boasts of a plethora of tools and systems available for the efficient content management for 'any-time any-where' access. In addition to institutional LMS, the faculty members can also use open source educational software MOODLE, which is customized specifically for VIT's teaching-learning infrastructure management and administration.

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Evaluation of student performance under various parameters over an extended period of time in the semester is being carried out through V-TOP. From time to time, the V-TOP is upgraded whenever need is felt for the infusion of a fresh set of globally accepted and proven instructional practices and technologies. The LMS platform is customized with a set of features that facilitates optimization of services, such as: user management, course management, on-line editing, data storage and access, visual analytics, academic tracking, accountability, session participation, attendance, mark assessments, tutorials, project evaluation, collaborative study, blogs and forums, and assessment of the performance. All class rooms are equipped with LCD, Wi-Fi and Smart Board. Each school has a dedicated smart class room with Lecture Capturing System (LCS). VIT has a vast collection of online resources; faculty and students can use the digital library software called VIT e-Gateway, which comprises of full text databases, e-journals and e-books like, Sciencedirect, Springer, IEEE, RCS, INDIA STAT, EBSCO, NATURE, Taylor and Francis etc. It also contains electronic thesis data bases like ProQuest. VIT has developed a mobile application of the library called MyLoft. The institute has also developed a new feature, V-PROPEL, a Virtual Programming Lab (VPL), which automatically validates source codes written in various programming languages. It supports more than 25 programming languages and scripts. From 2017 onwards, VIT has added more than 3000 lectures captured using Lecture capturing system installed in Smart Class rooms. More than 60 full courses have been captured so that they can be used by the students for their revision as and when they want. The institute strives towards becoming the epitome of excellence in the field of online education and allied areas. To facilitate these objectives, VITOL (VIT On Line learning institute) equipped with world-class virtual studio was inaugurated in 2019, with an objective to provide MOOC courses with exceptional learning experience through cutting edge technologies by the subject experts.



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

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

Response: 20:1

#### 2.3.3.1 Number of mentors

Response: 1695

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	<u>View Document</u>

# 2.4 Teacher Profile and Quality

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

Response: 99.5

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

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

**Response:** 67.04

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

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2018-19	2017-18	2016-17	2015-16	2014-15
1367	1230	1152	930	806

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

# 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:** 7.53

# 2.4.3.1 Total experience of full-time teachers

Response: 13136

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

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

Response: 10.38

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

2018-19	2017-18	2016-17	2015-16	2014-15
70	37	33	14	15

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

## 2.5 Evaluation Process and Reforms

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

Response: 11.7

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

2018-19	2017-18	2016-17	2015-16	2014-15
11	12.5	14.5	12	8.5

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

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

Response: 0.4

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

2018-19	2017-18	2016-17	2015-16	2014-15
68	92	152	159	98

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

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

## **Response:**

### **Examination procedures and processes**

At VIT, all examination related processes and procedures are integrated into the indigenous software V-TOP and is being continuously upgraded. All activities related to examinations including exam scheduling, venue and seating deatils, mark entry, grade processing, publication of results, paper seeing process, revaluation and issue of consolidated grade sheet are carried out digitally.

### **Unique Features of Examinations at VIT:**

- Written examinations are scheduled slot-wise as per the course registration of the students with online download of hall tickets
- Both relative and absolute grading are practised based on the type and mode of the course and also based on the number of students enrolled in a class.

### **Processes integrating IT**

#### **Conduct of Examinations:**

Examinations are conducted in paper (normal) mode. With the faculty empowerment in action, faculty members are empowered to set their own question paper. However, there is also provision for setting common question paper for same courses offered in multiple batches. Question papers are accepted only after moderation by the moderation committee, set up by the Department. The question paper is submitted through V-TOP.

### **Evaluation of Answer Scripts:**

### **Digital Valuation System (DVS)**

From the academic year 2016-17 onwards, Digital Valuation System (DVS) is being practised to reduce the exam cycle time. Under this process, physical answer scripts are scanned using high speed scanners and made available to faculty for digital evaluation. Answer scripts are identified using barcode of the student's registration number and are masked during valuation. During the academic year 2017-18, "Paperless Digital Exam Services" were conducted on an experimental basis through exam pads.

#### **Continuous Internal Assessment System**

- Continuous assessments carry an overall weightage of 60%. The assessments include written tests and several other assessment options. Written tests include Computer Based Tests (CBT), Open Note Book (ONB) and Open Book (OB) type, in addition to the regular examination mode. ONB and OB examinations ensure that the students concentrate on developing their higher cognitive levels.
- The other assessment options include home assignments (both manual and digital), involvement in

- technical events, online courses, video recording, quiz and several others. Rubrics are well-defined and communicated to the students in advance.
- All assessments are mapped to the appropriate course outcomes. The marks obtained in the continuous and final assessments are used to quantify the attainment of the course outcome. However, only the grades obtained by the student, in a given course, are considered for calculating the programme outcome and programme specific outcome attainment.

### **Embedded Project Components**

• Courses with blend of theory, laboratory and project as applicable skills are assessed on all the three components to finalize the grades as per the ratio of their weightages.

#### **Evidence of Success**

After the introduction of Digital Valuation System (DVS), the following improvements have occurred

- Removal of totalling errors and errors in evaluating excess questions answered by students
- Publication of results within 10-12 working days from the last day of the examination which reduced our exam cycle.
- Paper seeing is made available online to the students.

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

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

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

### 2.6 Student Performance and Learning Outcomes

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

### **Response:**

Vellore Institute of Technology has been following outcome based teaching learning process since the year 2007 and got its first set of programs accredited by ABET in 2010. Currently, all programs of the institution have the generic Program Outcomes (PO) which ensure the attainment of graduate attributes. The programs also have Program Specific Outcomes (PSO), which address the program specific requirements. The PSOs are formulated taking into consideration the expectations of respective professional bodies of the program like UGC, ASME, ASCE, AICTE and IEEE. The PSOs are formulated by a team of senior faculty members of the program during the curriculum design stage itself. The PSOs are approved by the respective Board of Studies (BoS) with representation from Industries, after due deliberation.

At the course level, all courses of the program, have well-defined set of course outcomes. The course outcomes are formulated during the syllabus design stage and they address the higher order thinking capabilities. A team of faculty members handling the course formulate the COs and the same is deliberated and approved in the Board of Studies. The course outcomes are planned and designed so as to cover the entire syllabus and the designated competencies. The project and laboratory components of the courses also separate learning identities. A typical 3 credit course has about 6 course outcomes. Based on the specific requirements of courses the number of course outcomes vary.

All the instruments used for evaluating the student performance, including assignments, quizzes, individual questions of continuous assessment tests and final assessment tests are mapped to specific Course Outcomes. This enables the precise quantitative valuation of attainment of course outcomes based on student's output. In all assessment processes, specific emphasis is given to test the attainment of higher order thinking skills.

#### **Publicizing PO, PSO & COs**

- The POs and PSOs of all programmes are published in the website of the Institution, in the students' LMS and in the Syllabus books of programmes
- POs and PSOs are displayed at the strategic locations in Schools
- The POs and PSOs are made clear to all the students at the time of admission during the orientation programme
- All course teachers make the course objectives, course outcomes, lesson plan schedule, detailed daywise session plan, evaluation pattern etc, clear to the students in the very first class of the course
- In the Faculty Induction Programs all faculty members are exposed to the concept of Outcome Based Teaching Learning (OBTL) Process
- Refresher programs are conducted for faculty members on the OBTL Process

Thus the institution has in place a well-defined POs & PSOs for all programs and COs for all the courses. These details are published in the institution website and are integrated with the teaching learning and evaluation system of the institution.

Taxonomy of Educational
Objectives

Course Outcomes aligned with Program Outcomes and PSOs

Course objectives alligned with Course Outcomes

Program Outcomes as per UGC & International requirements

Course Outcomes mapped with syllabus content

File Description	Document
Upload COs for all courses (exemplars from Glossary)	View Document

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

**Response:** 

Implementation of OBE and assessment

**Assessment of Course Outcomes (COs)** 

- 1. Course oucome attainement is caluclated from all Course related assessments
- 2. The assessment process uses both direct and indirect measures to measure the attainment of each outcome.

The examples of such measures are given below

### I. Direct attainment is calculated through

- a) Examinations
- b) Assignments and quiz
- c) Projects or any other instrument used by the faculty for assessment

#### II. Indirect Assessment

Course Survey is carried out for every course in each semester to get a formal feedback from students for the courses offered in a semester and provide objective information to the faculty for self-appraisal, self-improvement and development. Formal student feedback is obtained online or manually semester-by-semester mandatory course evaluation using course survey form.

- 3. The level of attainment of each Course Outcome is fixed at 60% across the University. The direct method (90%), is based on marks obtained is assessment and indirect method (10%) is based on the student survey.
- 4. The level of attainment of each Course outcome is computed using a macro enabled excel sheet.
- 5. A detailed summary of attainment of each Course Outcome is presented to the course coordinator and Head of Department, and the reasons for non-attainment are analyzed and an action plan report is also prepared.
- 6. By Undertaking Course Assessment at the end of each course, and finding out the strengths and shortfalls of the learning taken place, necessary changes in Teaching-Learning Process, Course Content etc. are proposed by course committee, these are taken into consideration whenever this course is offered in subsequent semesters.

### **Assessment of POs and PSOs:**

- 1. The Course Outcomes are mapped to appropriate Programme outcomes and Programme specific outcomes through course and program articulation matrices, in a weighted manner.
- 2. The University Core (UC) and Programme Core (PC) courses are being taken for calculation of PO attainment and Programme Core (PC) courses for PSO attainment. Weighted averages are used to calculate POs and PSOs, which are obtained from using the course articulation and programme articulation matrices.

- 3. Since the institute follows Fully Flexible Credit System (FFCS), students from different streams and batches attend the course. Therefore, the attainment of the POs and PSOs are calculated from the grades obtained by specific batch of students at the time of the graduation.
- 4. The institution has set a minimum POs and PSOs attainment level of 7 out of 10 point scale. This data is analyzed and is discussed in BoS/Academic council meetings. The BoS/Academic council recommends curriculum delivery methods, improvements in COs and improvements in curriculum as and when required. A comparative analysis PO attainment of successive batches of students is also carried out.

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

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

Response: 94.56

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

Response: 7836

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

Response: 8287

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

## 2.7 Student Satisfaction Survey

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

Response: 3.49

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

## Criterion 3 - Research, Innovations and Extension

### 3.1 Promotion of Research and Facilities

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

### **Response:**

Vellore Institute of Technology accords high priority for the promotion of quality research. Accordingly the Institution has a well-defined policy for promoting research and regularly updating the research infrastructure.

The various schools of the Institution, in their annual budgets, allocate adequate resources for procuring and maintaining the state of the art equipment and instruments. The institution also has centralized facilities and research centres to cater to the research needs of faculty members and students.

Some of the major research facilities augmented in the last five years are

- Mass Spectrophotometer
- BIACORE3000
- Nuclear Magnetic Resonance Spectrometer (NMR)
- 200 kV High Resolution Transmission Electron Microscope (HRTEM)
- Open Electronic Control Unit (ECU) for Engine Testing
- Hybrid Laser GMA Welding Power Source with Robot
- Scanning Electron Microscope
- Anechoic Chamber
- Metallic 3-D Printer

Other than the equipment and instruments, the institute subscribes to important research journals such as Elsevier, Springer, IEEE, ASME and ASCE. The annual subscription amount spent on Journals for the financial year 2018-19 was Rs. 5.92 crores. The institution has also subscribed to Scopus indexing database.

The various research laboratories and centres established in the recent past like Autonomous Vehicle Research Lab, Human Organ Manufacturing and Engineering Laboratory, 3-D Printing Lab and Wearable Technologies Laboratory enable focussed research in frontier areas of Science and Technology.

The institutional research policy is uploaded in the website (https://vit.ac.in/sites/default/files/VIT-Research-Promotion-Policy.pdf)

To cater to the increasing space requirements for the expansion of research facilities, the institution has initiated the construction of "Pearl Research Block", with proposed 40,000 sq.m of built up area.

To promote quality of research and to enhance the research output, the institution has launched various research promotion schemes, which include

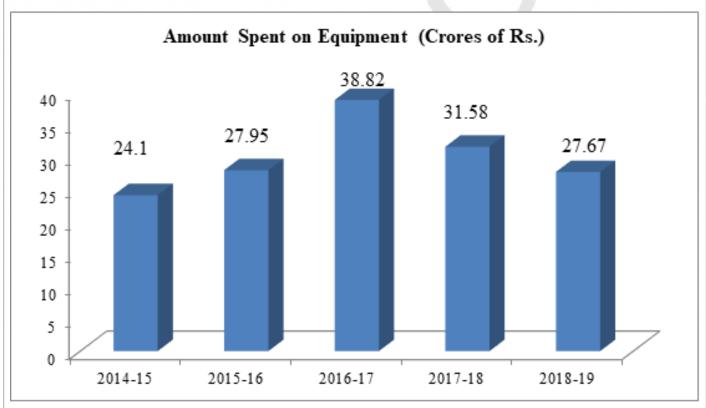
• Institutional Ph. D fellowship of Rs.20,000/- p.m. for a period of 3 years to the full time Ph. D

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research scholars. Currently, 902 research scholars are getting benefitted.

- Seed money grant to young faculty members to establish their research facility in VIT. In the financial year 2018-19 a total amount of 421.54 lakhs of rupees was sanctioned and 177 faculty members were benefitted by this scheme.
- "Raman Research Award" to inculcate the Research Culture among students and research scholars. The award comprises cash incentive and certificate for quality research publication.
- "Research Award" to faculty members, as financial incentive for (i) Quality Publications including journal publications, books and book chapters (ii) Patents (iii) Funded Projects and (iv) Contribution to the 'h' index of the institution
- Institution also provides full financial support for participation in national conferences and partial support up to 50% for participation in International Conferences. Publication fee for open access publication in high impact factor publication is also supported.

The amount spent on the purchase of new equipment in the last five financial years is shown below and it demonstrates the periodic updating of research infrastructure.



VIT bagged the FICCI Higher Education Excellence Award for "Excellence in Enabling Research Environment" in the year 2019. This bears testimony to the commitment of the institution for continuously upgrading the research facility and promoting quality research.

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

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

**Response:** 232.91

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

2018-19	2017-18	2016-17	2015-16	2014-15
423.54	222.39	275.68	120	122.93

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

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

**Response:** 0.64

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

2018-19	2017-18	2016-17	2015-16	2014-15
12	28	5	3	4

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

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

Response: 340

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

2018-19	2017-18	2016-17	2015-16	2014-15
89	65	60	70	56

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

### 3.1.5 Institution has the following facilities to support research

- 1. Central Instrumentation Centre
- 2. Animal House/Green House
- 3. Museum
- 4. Media laboratory/Studios
- 5. Business Lab
- 6. Research/Statistical Databases
- 7. Mootcourt
- 8. Theatre
- 9. Art Gallery
- 10. Any other facility to support research

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

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

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

Response: 70.59

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

Response: 12

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

### 3.2 Resource Mobilization for Research

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

**Response:** 452.31

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

2018-19	2017-18	2016-17	2015-16	2014-15
80.19	120.32	0.942	198.30	52.56

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

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

**Response:** 7268.18

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

2018-19	2017-18	2016-17	2015-16	2014-15
1863.44	1472.51	1610.33	1289.18	1032.72

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

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

Response: 0.98

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

Response: 318

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

Response: 1628

File Description	Document
File Description	Document
Supporting document from Funding Agency	<u>View Document</u>
Institutional data in prescribed format	View Document
Any additional information	View Document
Paste Link for the funding agency website	<u>View Document</u>

## 3.3 Innovation Ecosystem

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

### **Response:**

The institution has a well-established 'Technology Business Incubation' center known as 'VIT-Technology Business Incubator (VIT-TBI)', and it has been operational since March 2003. It is a joint initiative with Department of Science and Technology, Govt. of India. The VIT-TBI has subsequently partnered with TIFAC, TDB, DSIR, MSME and BIRAC of the DBT on various innovation & entrepreneurship programs and through grant funding. VIT-TBI has worked with international agencies such as UNIDO and 'infoDev' (The World Bank Group) in the past.

VIT-TBI provides access to infrastructure, prototype development, research assistance, funding, business consulting etc., in a single window mode to early stage technology entrepreneurs. It also makes use of the huge research infrastructure of the institute.

VIT-TBI is a 'PRAYAS Center' under the NIDHI scheme of DST for nurturing knowledge-based and technology-driven ideas and innovations into successful start-ups.

'BioNEST' - A Bioincubation Center at VITTBI has been set up with the support from BIRAC, and is a state of the art incubation center supporting innovative start-up companies and bio entrepreneurs engaged in the broad areas of life sciences and medical devices.

The major activities of VIT-TBI include:

- Extending seed funding & grants to start-ups in the technology domains of Energy, Healthcare, Manufacturing, Agriculture, Biotechnology and Information technology
- Providing infrastructure and resources for R&D with facilities for Design, Experimentation and Product Development for innovators/startups
- Encouraging New Product Development in cutting-edge technologies benefiting the society
- Organising structured innovation & entrepreneurship capacity building programmes for all the stakeholders at regular intervals
- Managing the Entrepreneurship Cell (E-Cell) of VIT for the promotion of entrepreneurship on campus
- Through the E-Cell, support innovative student startup projects with VIT grants up to Rs.5 Lakhs in phases
- Some of the recent programs organised by VIT-TBI are:
  - 'MedTech Challenge' for students/early stage entrepreneurs to encourage innovations in the healthcare and medical devices sector (Jan 2019)
  - Two-week Faculty Development Programme on "Entrepreneurship, Innovation and Incubation", (Nov Dec 2018)
  - 'HackerTech' with tracks on Machine Learning/Artificial Intelligence, Augmented Reality/Virtual Reality, Blockchain, Data Analytics, Robotics & Automation and Cybersecurity, for students (Oct 2018)
  - Three-day Entrepreneurship Awareness Camp for students (Oct 2018)
  - Six-week Technology Entrepreneurship Development Programme (TEDP) in 'Food & Agro Processing' (Oct – Nov 2018)
  - Details of VIT-TBI are available on http://www.vittbi.com/.

Towards establishing a conducive innovation ecosystem, as part of the curriculum, all students undergo two University Core Courses (i) Introduction to Innovative projects and (ii) Lean Start-up Management. These project-based courses enable students to learn through hands on projects. All schools of the University periodically organise various Hackathon, Codeathon and Designathon competitions for students to enhance their design thinking capabilities.

About 60 companies have been incubated or are in the process of being incubated during the past 15 years. Some of the prominent companies incubated by the VIT TBI are:

- Xcode Life Science Pvt. Ltd., (https://xcodelife.co/)
- Thinkcore Technologies Pvt. Ltd., (http://www.thinkcoretech.com/)

- The Meditube Media Pvt. Ltd., (https://www.themeditube.com/)
- Kvyor Genomics Pvt. Ltd., (http://www.kyvorgenomics.com/)
- Virtis Bio Labs (http://www.virtisbiolabs.com)

File Description	Document
Paste link for additional information	View Document

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

Response: 429

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

2018-19	2017-18	2016-17	2015-16	2014-15
125	106	91	69	38

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

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

Response: 126

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

2018-19	2017-18	2016-17	2015-16	2014-15
39	35	24	17	11

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

#### 3.4 Research Publications and Awards

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

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

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

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

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

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

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

Response: 122

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

2018-19	2017-18	2016-17	2015-16	2014-15
57	25	15	14	11

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

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

Response: 2.24

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

Response: 1151

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

Response: 514

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

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

Response: 8.1

## $3.4.5.1\ \text{Number}$ of research papers in the Journals notified on UGC website during the last five years.

2018-19	2017-18	2016-17	2015-16	2014-15
2917	2615	2710	2771	2176

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

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

Response: 5.4

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

2018-19	2017-18	2016-17	2015-16	2014-15
2355	2098	1986	1560	800

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

## **3.4.7** E-content is developed by teachers:

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

**Response:** C. Any 3 of the above

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

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

Response: 4.89

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

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

**Response:** 69.5

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

## 3.5 Consultancy

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

### **Response:**

Vellore Institute of Technology has a transparent policy for consultancy and the same is displayed in the institutional website.

https://vit.ac.in/sites/default/files/VIT-Consultancy-Policy.pdf

The salient features of the consultancy policy are:

- Standard terms and conditions for industrial consultancy
- Well defined procedure for securing and executing the consultancy works
- The role of institution's organisational structure in execution of consultancy
- Streamlining the interaction with the industry
- Facilitating multidisciplinary consultancies
- Revenue sharing scheme for different types of consultancy and testing
- Standard forms for all sub processes

To promote sponsored research activities, the institution has established a separate office for Sponsored Research and Industrial Consultancy (SpoRIC) to act as a nodal centre for obtaining and managing consultancy projects for the Institution. SpoRIC has a Director and is assisted by four Assistant Directors, and a set of Advisors and Consultants having R & D and Industrial exposure.

The institution encourages faculty members to establish a strong connect with various industries. Select faculty members visit identified industries periodically and interact on a continuous basis. This continuous interaction enables faculty members to identify industrial problems for solving through consultancy mode or through student projects.

After interactions for about an year and after some salient outcomes in terms of collaboration, the relationship is formalised through Memorandum of Understandings. Sustained interactions have also resulted in industries like Danfoss, Schneider Electric India, Johnsons Controls India and Valeo setting up Industry Sponsored Laboratories.

SpoRIC has created a Technology Development Cell as a network of Institutions and Industries with VIT as the nodal coordinating agency.

The major functions of Technology Development Cell are: (i) To increase access of industry to cutting edge technology developed within institutions. (ii) To capitalise on the research base of VIT and partner institutions for evolving world class technology. (iii) To take up collaborative applied research projects along with Industries. (iv) To assess and identify potential technology areas to create productive ecosystem of industry and institutions.

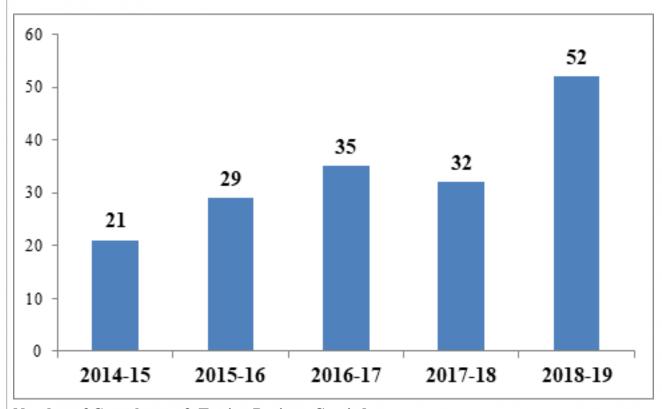
The specific concessions given to faculty members to focus more on Industry Consultancy and Connect

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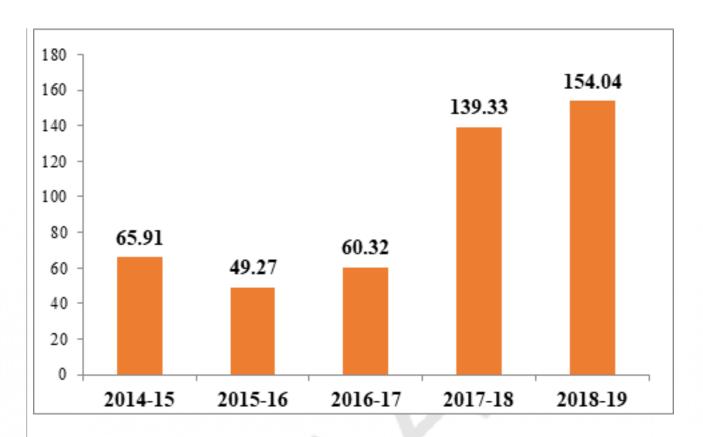
include.

- Transparent revenue sharing mechanism
- Sponsorship of travel and other expenditure during all official visits
- Grant of on duty for all such visits
- Consideration of contributions in extension activities in performance evaluation
- Reduced academic workload for significant contributions

The study increase in the number of projects carried out and the total revenue from consultancy and testing projects demonstrates the institutions growing performance in this count.



Number of Consultancy & Testing Projects Carried out



## Revenue Generated from Consultancy and Testing Projects (in lakhs of Rupees)

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

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

**Response:** 291.78

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

2018-19	2017-18	2016-17	2015-16	2014-15
96.28	62.42	61.11	38.39	33.58

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Audited statements of accounts indicating the revenue generated through consultancy	View Document
Any additional information	View Document

## 3.6 Extension Activities

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

### **Response:**

VIT strongly believes in the need for the holistic development of students and accordingly the institution is putting forth consistent efforts in directing the students' energy towards addressing the real life issues of common man, and the society at large.

In the Engineering Curriculum of VIT, all students undergo a two credit course on "Technical Answers to Real World Problems" in which students as project teams take up a problem of the neighbourhood community and come out with innovative technical solutions to these problems. Some of the problems taken up and addressed include low cost effluent treatment system for tanneries, robotic block removal in underground sewage system, disaster assessment and mitigation using IoT, and low cost water purifier.

VIT has over 150 clubs and chapters, which are active student bodies providing platform for students to indulge in various co-curricular, extra-curricular and outreach activities. Of these, the following 20 clubs provide avenues, for direct interaction of the students' with the society.

- 1. Anokha (Welfare of the underprivileged kids)
- 2. Ayuda (Club for improving Health & Literacy of masses and assistance to old)
- 3. Becoming I Foundation (Youth for community development)
- 4. FEP-SI (For a Fairer & more egalitarian society)
- 5.E2PC (Energy & Environment Protection Club)
- 6. Fifth (5th) Pillar (Against Corruption at every level of society)
- 7. Good Girls and Boys (GGB) (Sustainable Development)
- 8. Juvenile Care (Charitable trust that works for the welfare of underprivileged kids)
- 9. Kalvi (Uplift the marginalized living in slums and villages through quality education, skill enhancement and healthcare)
- 10. Leo Club (Youth organization of Lions Clubs International)
- 11. Make A Difference (MAD) (For children in orphanages and street shelters)
- 12. National Cadet Corps (NCC) (To Develop Character, Comradeship, Discipline, Leadership, Secular Outlook, Spirit of Adventure, and Ideals of Selfless Service)
- 13. National Service Scheme (NSS) (To understand and Serve the community)
- 14. Rotaract Club (To improve the lifestyle of the underprivileged)
- 15. The Red Ribbon (Blood Donation)
- 16. Uddeshya (Club for "Empowering Youth Fueling Change")

- 17. Universal Higher Education Trust (UHET) Club HEARTS (Promoting Higher Education among Economically Weak and Meritorious Students)
- 18. TEDXVIT (A Platform seeking a deeper understanding of the world)
- 19. Youth Red Cross Association (YRC) (For Protection of health and life, To Serve the sick, To Promote National and International friendship)
- 20. VIT SPARTANS (A forum to the hidden talents in Students)

The detailed account of objectives and activities of various student clubs is available in the website https://vit.ac.in/campus/Clubs/Social%20Outreach

Some of the significant outcomes of these initiatives are:

- The vigorous efforts of various clubs and chapters of VIT, Vellore and Chennai have led to the planting of thousands of trees and improving the green cover all over Vellore and in areas around VIT Chennai
- The Palar River cleaning project, initiated by VIT has yielded desirable results and was recognised by the Government of Tamil Nadu with its "Green Award 2017"
- VIT Vellore remains as an Institution with the large number of Blood Donations for more than 15 years.

File Description	Document
Paste link for additional information	View Document

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

Response: 39

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

2018-19	2017-18	2016-17	2015-16	2014-15
18	7	1	9	4

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

## 3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC,

## Government and Government recognised bodies during the last five years

#### Response: 411

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

2018-19	2017-18	2016-17	2015-16	2014-15
130	119	75	55	32

File Description	Document
Reports of the event organized	View Document
Institutional data in prescribed format	<u>View Document</u>

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

Response: 77.6

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

2018-19	2017-18	2016-17	2015-16	2014-15
25758	23751	22565	22349	20166

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

#### 3.7 Collaboration

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

Response: 484.6

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

2018-19	2017-18	2016-17	2015-16	2014-15
612	585	387	579	260

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

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

**Response:** 93

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

2018-19	2017-18	2016-17	2015-16	2014-15
23	20	15	17	18

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

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

## 4.1 Physical Facilities

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

### **Response:**

Departments of Vellore Institute of Technology are located in the Main campus (VIT Vellore) and the VIT Chennai campus. VIT is spread over 563.65 acres of land. Of the total built-up area of 7,65,294 sq.m, an area of 2,20,158 sq.m is used for academic activities (classes, labs, library, auditoriums, etc.) and 4,56,319 sq.m for hostels. The remaining area is used for support facilities like play grounds and canteens.

At VIT, strategies are adopted for delivering teaching – learning process, which includes interaction and direct contact between the student and teacher in class rooms, laboratories and library. We have well-furnished class rooms ubiquitous ICT facility, state-of-the-art laboratories and excellent computing facilities for nurturing teaching – learning and research. The picture give below illustrates how the services are designed so that students can learn effectively.

341 Laboratories	375 Class Rooms (ICT enabled)	19 Seminar Halls
Smart Row Data Centre		2231+ Wi-Fi Hotspots
1:4 Computer:	8293 Computers	12.155Gbps Internet
Students		Bandwidth

#### **Class rooms:**

VIT has 375 class rooms cater the needs of UG and PG programs, including specialized interdisciplinary programs. All the class rooms have LCD facility, Wi-Fi connectivity and equipped with smart board as well as white board. This facilitates multimedia presentation and also enables lecture capturing. It is well equipped with facilities of effective teaching and learning as per AICTE (for UG & PG programs), Council of Architecture (for UG programme) and The Bar Council of India (for UG programme).

#### **Teaching & Research Laboratories:**

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VIT is very well equipped with laboratory facilities for hands-on training of UG and PG students. Additionally, it has specialized laboratories that provide interdisciplinary facilities with state-of-the-art equipment for PG & Ph.D. students to carry out their research work.

We have 341 teaching and research labs in various programs. There are several laboratories funded by Industry including, Motorola wireless and RFID Application lab, ETAS simulation lab, IBM Mainframe centre, Pearson Vue Testing centre, Microsoft innovation centre, CISCO centre etc. that train the students in state-of-the-art application and instrumentation. Some of the advanced lab facilities in the campus includes, VCARE, Nano Composite, Sol-Gel Biosensor, SEM, NMR Spectrometer, to name a few.

## **Computing Equipment:**

Currently, computing equipment has become the backbone network of any discipline and smartphone and Wi-Fi enabled for students of Generation Z. With foresight, VIT established IT infrastructure that has been widely spread across academic buildings, laboratories and hostels using high speed robust network with access to Internet through multiple ISPs. All computers are connected to the internet over high-speed cables facilitating a 1:4 availability of computer to students. The computer laboratories cover many cutting-edge research sectors, such as Networking & Pervasive, Cloud Computing & Data Analytics, Analog & Digital Circuits, to mention only a few.

VIT provides uninterrupted access to information and network services with 12.155 Gbps of internet bandwidth and over 2231 Wi-Fi access points. The security solutions from Palo Alto, McAfee, CISCO AMP & K7 etc. are used to secure campus IT facilities.

Energy efficient, large data storage system built to the needs of the stakeholders for storage of their academic data. As technology demands, it has also subscribed to a wide variety of software licenses.

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

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

#### **Response:**

At VIT, students are groomed to have a holistic personality. In order to be mentally and physically fit, VIT provides state of the art facilities with magnificent air conditioned gymnasia, snooker hall, play grounds, stadium, indoor courts as well as a number of centres for physical education & sporting activities that help students stay as fit as a fiddle. These facilities develop a spirit of sportsmanship in students. A swimming pool of international standards is also available in the campus.

S.No.	Description of Sports/Games (Outdoor Sports –VIT Vellore)	Nos
1.	400 m Track and Field	1
2.	Football	3
3.	Cricket	2
4.	Badminton for Women (Floodlight)	6
5.	Badminton for Men (Floodlight)	18
6.	Basketball Court (Synthetic, Floodlight)	1
7.	Basketball Court (Floodlight)	5
8.	Handball Court (Floodlight)	1
9.	Hockey Field	1
10.	Tennis Court (Synthetic, Floodlight)	2
11.	Tennis Court (Clay, Floodlight)	2
12.	Volleyball Court (Floodlight)	3
13.	Volleyball Court (Synthetic, Floodlight)	2
14.	Throw ball Court (Floodlight)	1

S.No.	Description of Sports/Games	Nos
	(Indoor Sports –VIT Vellore)	
1.	Badminton for Men (Wooden Floor)	3
2.	Badminton for Women (Wooden Floor)	2
3.	Table Tennis for Women	8
4.	Table Tennis for Men	16
5.	Snooker A/C	1
6.	Squash Court for Men (Wooden)	2
7.	Squash Court for Women (Wooden)	1
8.	Gymnasium Trendset A/C	1
9.	Gymnasium (Indoor Men A/C)	1
10.	Gymnasium (Women, A&B A/C)	1
11.	Gymnasium (Women, Indoor A/C)	1
12.	Gymnasium (Women, Indoor)	2
13.	Multi Gym for Men	2
14.	FITTY A/C Gym	1
15.	Swimming Pool for Men (50m x 25m)	1
16.	Swimming Pool for Men (25m x 12.5m)	1

S. No.	Description of Sports/ Games	Nos
	(Outdoor Sports - VIT Chennai)	
1.	Badminton courts	2
2.	Ball badminton Court / Throw Ball Court	1
3.	Basket Ball Courts	2
4.	Cricket ground	1
5.	Cricket Practice Nets	3
6.	Football ground	1
7.	Handball Court	1
8.	Hockey ground	1
9.	Tennis courts	2
10.	Volley ball courts	2
11.	200 Mts. Track with mini football	1
S. No	Description of Sports/ Games	Nos.
	(Indoor Sports – VIT Chennai)	
1.	GYM at Boys hostel "A"	1
2.	GYM at Girls hostel	1
3.	GYM at Boys hostel "B"	1
4.	GYM at Boys hostel "C"	1
5.	Indoor badminton / Basketball court (Multi-Purpose)	1

#### **Outdoor Sports:**

- 1.Outdoor Stadium: The 400m track and field at men's hostel block has flood light and audience gallery. The total area of the facility is 30,000 sq.m.
- 2. Synthetic Basketball courts: These were established during 2018 with flood light and audience gallery arrangements in an area of 714 sq.m to fulfil the student's needs.
- 3. Synthetic Tennis Courts: Two Tennis courts fulfil the students' needs, with flood light and audience gallery arrangements in an area of 197 sq.m each.
- 4. Synthetic Volleyball Courts: Two courts were established during 2018 to fulfil the students' needs with flood light and audience gallery arrangements with an area of 162 sq.m each.

#### **Indoor Sports**

- 1. Badminton courts: Wooden Floor Badminton courts (Men & Women) Five Badminton courts have been established with flood light at the Indoor Stadium. The area of each court is 82.00 sq.m.
- 2. Snooker Table: 3 Snooker tables have been set-up with an area of 128 sq.m each in centrally air conditioned rooms.
- 3. Squash Courts: Three air conditioned squash courts function at the Indoor stadium with flood light. The total area of each court is 68 sq.m.
- 4. A/C Gymnasium: The Trendset Centralized A/C Gymnasium for men & women caters to the needs of the students. At present, there are 5 centralized A/C Gymnasia with an area of 257 sq.m.
- 5. Swimming Pool: Two swimming pools for men & women have been built with an area 4338

m2 (50m x 25m) for men & 1100m2 (25m x12.5m) for women.

These facilities also enable the institution to organise various sports competitions including **Rivera &** *Vibrance*, the annual international sports and cultural fest.

### **Cultural Activities**

At VIT, education is confined not only to academic excellence, but also to the overall development of students. To meet this objective, VIT conducts various events through the 203 clubs & chapters. The institution has adequate infrastructure facilities to successfully conduct all these activities through the available auditoriums, seminar halls and smart class rooms. These facilities also enable the institution to organise *Rivera & Vibrance*, the annual international sports and cultural fest and *GraVITas & TechnoVIT* the national level annual technological and design Carnival.

### Facilities for Yoga training and practice

The institution periodically provides Yoga Training and Practice for students, faculty members and staff. Air-conditioned halls and open air facility are available for these activities.

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

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

### **Response:**

Every attempt is made by the institution to ensure that all students find VIT a very lively, fun-filled and resourceful community to enrich their erudite years. Some of the major general campus facilities that are available and aid in providing a good ambience for an enjoyable learning experience at VIT are listed below.

- Self-sufficient campuses with all amenities
- Sufficient number of hostel blocks for male and female students
- Variety of non-vegetarian and vegetarian vendors of different cuisine cater to various hostels
- Laundry services and salons in all hostel blocks
- Canteens in the vicinity of each academic block provide easy access to food and refreshments
- Photocopying facility in all academic blocks
- Well established Wi-Fi connectivity in the campuses for easy access to academic and research needs
- Closed circuit TV cameras for ensuring students' safety
- 24x7 male and female security personnel at all vital points
- Health centre with in-patient facility and 5 ambulances provide the required 24x7 health care facility

- Approach ramps and lifts for all buildings to facilitate differently abled students
- Transport facilities are provided both in and outside the campus so that day scholar students can easily commute from their residences/locations in and around Vellore and Chennai
- Battery operated vehicles for commuting inside the campus
- Walkways for safe, easy and congestion free movement of students inside the campuses
- Railway under bridges (RUB) for safe commuting between hostel and academic blocks
- Banks and ATM facilities
- Electrical power backup which is provided by standby power generators
- Guesthouse for the convenience of the visiting family members of students with online booking facility
- Gymnasium for male and female students with state-of-the art equipment
- Chillout Plaza containing two modernized music halls and two dance halls
- Other facilities include pharmacies, post office, courier services, book store, digital photo studios, grocery shop, tailoring, opticals, etc., to meet the day-to-day needs
- VIT campus has about one-third (32%) of its total area brought under green cover by the horticulture department
- RO water treatment plant with 1,135 KLD capacity with well-connected water supply network to provide 24x7 drinking water to the entire campus
- The institute has well established solid waste management system for collection, segregation, disposal along with manure composting facility
- For liquid waste management, modern water treatment plant with an installed capacity 4,500 KLD recycles about 90% of waste water for secondary applications such as, flushing, gardening and vehicle washing
- VIT Community Radio 90.5 MHz facilitates students to participate in mass media activities and contribute to build an effective, vibrant and sustainable community. The program contents include development in health, education, environment, agriculture, rural and other socially relevant aspects

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

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

Response: 42.78

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

2018-19	2017-18	2016-17	2015-16	2014-15
21721.96	13987	15160.58	15420.66	9264.57

File Description	Document
Upload audited utilization statements	<u>View Document</u>
Institutional data in prescribed format	View Document

## 4.2 Library as a Learning Resource

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

### **Response:**

VIT Central Library began the process of automation in 1998, with barcode technology using the in-house software for issue and return of books. In 2008, it was upgraded to a fully automated process with commercial ILMS, LIBSYS version 4.0 with web-centric applications.

In 2015, LIBSYS software version 7.0 with RFID technology was introduced. The new LIBSYS-ILMS has modules for book acquisition, cataloguing, circulation and serial management (periodical management). Members can browse and search the library collections with extended bibliographic details using Web-OPAC (federated search) facilities.

Value added services such as Current Awareness Services (CAS) and Selective Dissemination of Information (SDI) service are also provided. Patrons can choose the servers to be included in the search (Combined search on Z39.50, SRU/SRW and LIBSYS databases). MARC 21 (Machine Readable Catalogue) interface with AACR2 format is available for information search.

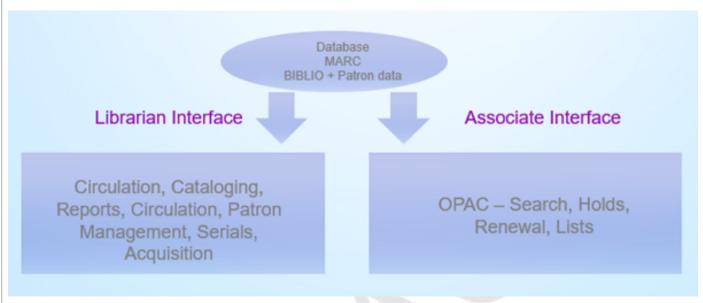
The Library has adopted ICT applications and implemented technological innovations to improve user experience. Facilities such as self-check-in and check-out, along with online renewal facility with SMS and e-mail alert provide seamless user experience. The book circulation facility (self-issue and return) using RFID technology is offered through a Kiosk. "Online No-Due Certificate" facility is available for issuing no-dues certificate to students. Library dues are collected through the online payment gateway system.

- In 2019, the library migrated to the ILMS-KOHA 19.05 from LIBSYS-7.0 Version with RFID Technology and biometric authentication. This ILMS-KOHA has a true enterprise-class ILS with comprehensive functionality, which includes modules for acquisitions, circulation, cataloguing, serials management, authorities, flexible reporting, label printing, multi-format notices, offline circulation when internet access is not available.
- MARC 21 (Machine Readable Catalogue) interface is available with AACR2 format for information browsing and searching.
- The library offers self-check-in and check-out, with RFID Technology, biometric integration and online renewal facilities with SMS/e-mail alerts.
- One-time online renewal facility is available.

#### **Web-OPAC: (Online Public Access Catalogue):**

### **Highlights and Advantages to patrons:**

The software offers unlimited capacity in terms of branches, patrons and patron categories accessible from any network system.



It contains the facilities of budget management, customizable data entry sheet, OPAC with RSS feed for searches and comments/reviews by patrons.

### **Digitization Facility:**

• The Central Library is equipped with modern, high speed scanner, BOOK EYE- 4 for document scanning which follows the copyright act.

#### **Key features:**

- The scanner has high speed, continuous scanning facility (A3 page scanning in three seconds) with auto scan, auto focus and auto cropping features.
- Wi-Fi and IP connectivity enabled scanning facility with customizable user interface is available.
- Scanning can be done from iPAD, Smart Phone or tablet.
- In addition to the above, two copiers cum scanner machines are available.
- The document scanner has been integrated with VIT-LMS VTOP portal for prepaid document scanning support services.

The library has developed an Institutional repository intranet portal which contains list of publications (which do not fall under copyright act) of faculty members and Ph.D. thesis in a browsable and searchable format.

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

## 4.2.2 Institution has access to the following: 1. e-journals 2. e-ShodhSindhu 3. Shodhganga

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### 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	<u>View Document</u>
Institutional data in prescribed format	View Document

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

Response: 582.8

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

2018-19	2017-18	2016-17	2015-16	2014-15
618	603.6	606.13	530.14	556.12

File Description	Document
Institutional data in prescribed format	<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 latest completed academic year

Response: 21.67

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

Response: 7598

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

#### 4.3 IT Infrastructure

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

Response: 100

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

Response: 394

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

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

#### **Response:**

Centre for Technical Support (CTS) maintains the policies governing the use of VIT computing and IT communication resources. The IT Policy applies to the resources administered by the administrative departments such as Library, Computer Laboratories, Offices of the Institution, Hostels and Guest houses wherever the network facility is provided by the Institution.

Further, the entire faculty, students, staff, departments, authorized visitors/visiting faculty and others who may be granted permission to use the IT Infrastructure, and must comply with the guidelines. Certain violations of IT policy laid down by VIT by any institution member may even result in disciplinary action against the offender by institution authorities.

The Acceptable use policies are applicable to Employees, Students, and Vendors & Visitors. CTS have framed various policies like Procurement, Installation, of Hardware, Network and software. E-mail account has been facilitated to employee and students under E-mail Use policy which is reviewed and maintained whenever the modification happens. Website Hosting and Database Usage policy has its method and hierarchy which is followed systematically.

VIT has proper budgeting process to arrive the IT budget needs of every school/department. Requirement gathering happens at school/departments. Once the IT budget is finalized at the school/department level, the approved budget is consolidated at CTS and arrive the total IT Budget requirement.

An average Annual Budget of Rs.17.87 Crore per year, provided on improving the IT facility shows the commitment of our Management in building the world-class IT facility in our campus. This includes the Capital and Operational budget of Vellore and Chennai Campus.

IT infrastructure has been widely spread across connecting 56 buildings with very high-speed robust network backbone. Our Computer network is built on CISCO switching platform with backbone running on 10Giga at present. 12000+ IP enabled devices are connected to this fast network. Understanding the demands of faculty and students to use digital media for their research, teaching & learning process, 12.155Gbps of internet bandwidth is made available through four major Internet service providers.

Over 2231 WiFi access points are positioned across the campus to facilitate internet access to our students, faculty and guests while they are in the campus. Seamless internet access given to students through Hotspots and well-planned WiFi network at Hostel rooms.

The comprehensive infrastructure includes 68 physical servers with 366TB of storage for Private Cloud with 220+ VMs and 500 Virtual Desktop Infrastructure(VDI) implemented for the students to work with engineering software anytime, anywhere and from any device. Our campus IT facility secured by implementing the best of the security solution from Palo Alto, McAfee, CISCO AMP and K7 which includes Next Generation firewall, Application firewall, Email Security, Advance Malware Protection, Endpoint Threat Protection, Openness etc.

IT expansion is done based on assessing the requirement and also understanding the need of implementing the best of the breed technology to support the teaching and learning process. Also meticulous in the assessment of the industry requirement with respect to advancement in technology and ensure our students are well aware of the technologies prevailing in the market.

File Description	Document	
Paste link for additional information	View Document	

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

Response: 4:1

File Description	Document	
Upload any additional information	<u>View Document</u>	
Student – computer ratio	View Document	

4.3.4 Available bandwidth of internet connection in the Institution (Leased line)	
Response: A. ?1 GBPS	
File Description Document	
Details of available bandwidth of internet  View Document	

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

1. Media centre

connection in the Institution

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

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

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

## 4.4 Maintenance of Campus Infrastructure

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

Response: 29.31

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)

2018-19	2017-18	2016-17	2015-16	2014-15
13329	16390	10984	7903	6002

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Audited statements of accounts	<u>View Document</u>

# 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:**

VIT has put in place standard procedures and practices which are aimed to provide excellent infrastructure facilities and periodically maintenance of them. The Planning and Monitoring Board members comprising of Vice Chancellor, Pro Vice-Chancellors, Registrar and Director Estates periodically review the utilization and maintenance of infrastructure in the campuses.

#### **Procedure for Maintaining and Utilizing Academic Facilities and Library:**

The Estates – Department directly takes care of the physical infrastructure like class rooms, Faculty cabins, Admin Offices, School offices, Laboratories, Galleries, Seminar halls, Auditoria, Hostels, Gardens and Circulation Areas and various Sports Complex. The below mentioned procedures are adopted for utilizing and maintaining various infrastructure facilities:

- Classrooms and laboratories are allotted by Dean / Academics through the dedicated online platform/software (FFCS)
- Seminar halls, galleries and auditoriums are booked and allocated using the online platform

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- Facility management team supervised by a manager takes care of maintaining all the physical infrastructure facilities like classrooms, seminar halls, gallery halls, lifts, etc.
- Maintenance related complaints are monitored through Call monitoring system and their reports are logged appropriately
- Well-established mechanisms for sharing sophisticated facilities like advanced microscopy facility, and an online booking facility
- Online booking of transport facilities for taking the students on Industrial Visits, official meetings of faculty and staff
- Each department/school has its own staff that include mechanics and technicians to maintain the lab equipment under the guidance of Lab In-charge who is a faculty in the program
- Lab equipment is maintained by the dedicated technicians in the labs on a periodic basis during summer/winter vacations
- Many departments have Annual Maintenance Contracts (AMC) with suppliers and companies for the repair and maintenance of key equipment
- Value added courses, Remedial learning classes, Summer and Winter semester for weak senior students, Preparation for TOFEL/GRE/GMAT/NET/GATE/UPSC etc. and other training programs for Campus Placements are conducted, during week-ends besides the regular teaching hours
- Central Library is fully air-conditioned and equipped with state-of-the-art of technology such as KOHA 19.05 Version, RFID self-check-in book drop and check-out kiosk, Touch screen KIOSK for library information display, Discussions rooms, Video conferencing facility, CCTV & Flap barrier etc.
- Central library works on all 365 days in a year and is well-utilized

### Procedure for Maintaining Computers and IT related equipment:

- Centre of Technical Support (CTS) is responsible for the upkeep and maintenance of all IT related and electronic equipment including computers and surveillance cameras
- CTS has on its role many system administrators, technicians and instructors who are responsible for repair and maintenance of equipment and computers including network related issues and surveillance system.

### Procedure for Maintaining Physical Infrastructure Facilities:

- The maintenance department under Director, Estates maintains the physical infrastructure on the campus which includes both breakdown and preventive maintenance of facilities
- All maintenance activities are tracked by a ticketing method (PEOPLE ORBIT 1.0/VIT Online service request) follows Maintenance request-service-satisfaction and feedback cycle for all repairs and services undertaken
- There are several experienced Civil and Electrical Engineers and dedicated technicians to maintain the AV system in class rooms and labs whose service can be availed upon request
- These staff report to the Director, Estates who ensures that class rooms, laboratories and other academic areas are functional and well maintained
- Scheduled and annual maintenance contract is in place for all major electrical equipment such as air conditioners and lifts
- Periodical maintenance of utilities like Housekeeping, Power supply, Sewage Treatment & Reverse Osmosis plants, Water supply, Fire Hydrant systems and Public Address systems are carried out and the same is entered in the log book

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• There are housekeeping activities by Log sheets. Horticulture department looks after the premises for making the campus look clean and green.

### **Procedure for Maintaining Sports Facilities:**

• Sports section has full-fledged Physical Director, Deputy Director, Assistant Director, Instructors, and Grounds men who maintain and clean the sports facilities and grounds

All regular maintenance works are managed by the Physical Education Department, while all major works are addressed by the Estate Department.

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

# **Criterion 5 - Student Support and Progression**

### **5.1 Student Support**

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

Response: 35.74

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)

2018-19	2017-18	2016-17	2015-16	2014-15
15343	14261	12328	7477	4581

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

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

Response: 62.71

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

2018-19	2017-18	2016-17	2015-16	2014-15
27361	24889	15395	14130	12473

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

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

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

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

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

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

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

### **5.2 Student Progression**

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

Response: 74.14

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

2018-19	2017-18	2016-17	2015-16	2014-15
686	333	241	156	75

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

2018-19	2017-18	2016-17	2015-16	2014-15
1009	440	317	219	94

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

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

Response: 50.82

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

2018-19	2017-18	2016-17	2015-16	2014-15
4379	3343	3548	4288	3774

File Description	Document
Upload any additional information	<u>View Document</u>
Self attested list of students placed	View Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

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

Response: 11.29

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

Response: 936

File Description	Document
Upload supporting data for student/alumni	<u>View Document</u>
Institutional data in prescribed format	View Document

## 5.3 Student Participation and Activities

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

Response: 30

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

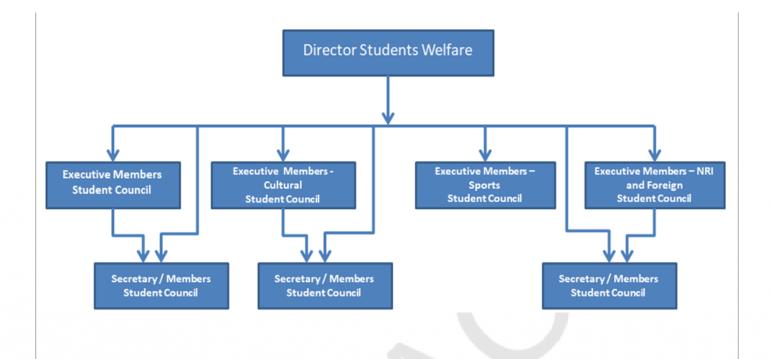
2018-19	2017-18	2016-17	2015-16	2014-15
5	15	2	7	1

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

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

#### **Response:**

The institute has an active Student Council with representatives from all the programmes of the institute. The Student Council is appointed every year through a rigorous selection process assessing students' academic performance, leadership qualities, non-scholastic participation, and co-curricular & extracurricular achievements. The Student Council has a unique structure that includes both final and pre-final year students. The final year students serve as Executive Members while junior students are the secretaries.



### **Student Council Organogram**

The Council oversees the activities of different student clubs and chapters. The Student Council for each academic year is inaugurated officially where the members take pledge to support the student community and act as a bridge between the students and the administration. In addition, the members of the Student Council play a pivotal role in enhancing the quality of various academic processes in the institution. They also represent the student community to hostel authorities and the canteen committee to ensure good quality nutritious food is served in hostels.



### **Summary of Student council activities**

The Student Council organizes various events of national importance, universal values and many Government of India initiatives like Swachh Bharat Mission, Unnat Bharat, Poshan Maah etc., in the institute. The Student Council also takes part in many socially relevant projects for community through various outreach events. Majority of the student council members also serve as Programme Representatives (PR). PRs are nominated for every academic programme with healthy representation from both genders. PRs take part in QC and department level PR meetings. During these meetings, PR students directly interact with the Dean and the HOD as well as Director of Student Welfare. The following issues are generally discussed during these meetings:

- Any syllabus related difficulties.
- Request for the additional support for improving students' performance.
- Any issues pertaining to class room teaching.
- Steps taken by the department to address issues that had risen out of previous QC and PR meetings.
- Special request for field projects, internships, placement and training.
- Analysis of the class performance in the continuous assessment examination and any issues raised by the class students to the PR.

Student conveners are selected to plan and participate in annual technical festival-*Gravitas* and cultural festival-*Riviera*. These events are self-governed by students with various committees such as registration, publicity, finance, events, and documentation etc. The entire process is digitized and paper free. The student teams work meticulously to maintain safety and security during these events.

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

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

Response: 96.2

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

2018-19	2017-18	2016-17	2015-16	2014-15
176	112	89	51	53

File Description	Document
Report of the event	<u>View Document</u>
Institutional data in prescribed format	<u>View Document</u>
Link for additional information	View Document

### 5.4 Alumni Engagement

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

### **Response:**

VIT has the one of the largest alumni network. The following are the salient features of the VIT alumni network:

There are about 18 Alumni chapters across the country and 30 outside the country including USA, Australia, UK, Muscat, Rwanda, Canada, Germany, Singapore and UAE. The VIT Alumni Association (VITAA), a registered body in India and USA, has been functioning from the institute campus. The main aim of the association is to maintain link between the institution and the alumni and share information on mutual growth, achievement and advancement in various fields.

Besides, VITAA conducts various social activities such as blood donation and health check-up camps, tree planting events etc. for the benefit of the society. It also conducts various competitions for school kids to identify, promote and nurture the talents among the school students.

The alumni employed in reputed organizations in India and abroad help the final year students in their project work and also inform them about the employment opportunities in their respective organizations. They also help in getting internships and placements for present students and organise Industrial visits. The University, in turn, provides free access to the library and assists budding alumni entrepreneurs to incubate technology ventures. Our alumni are invited to deliver lectures to the students about the current scenario and the recent developments in industries.

VIT alumni provide scholarships to the needy students every year. The VITAA Scholarship Awards are presented to the meritorious student from economically poor background at the VITAA Annual Day. Alumni who have made prominent contributions to the field of Academics & Research, Corporate Career, Entrepreneurship and Social Development are honoured with the 'Distinguished Alumni Award', and also the successful young alumni (age below 30 years) who have made significant strides in their field of expertise are also honoured with the Young Alumni Achiever Award every year.

"TRACKS" the annual newsletter of VITAA, records the events and developments in VIT, activities of the Alumni Association & Chapters, and personal and professional achievements of the alumni.

Main highlights of the VITAA website (www.vitaa.org):

• Maintains up-to-date information about alumni and their activities

- Acts as a professional and personal information sharing platform
- Increases the leverage of the alumni network for the benefit of the alumni
- Improves the modes of Alumni-Alumni and VIT-Alumni communications
- Alumni can submit their accomplishments in the 'Alumni Achievements' section
- Alumni members can view jobs posted by other alumni and can also post jobs for fellow alumni.

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

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

**Response:** A. ? 100 Lakhs

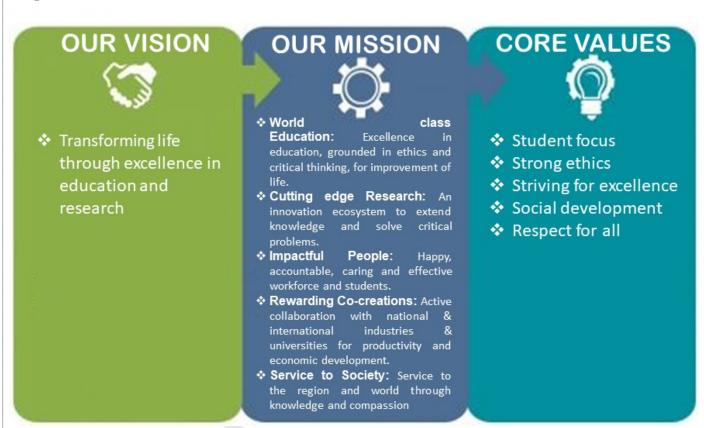
File Description	Document
Any additional information	<u>View Document</u>

# Criterion 6 - Governance, Leadership and Management

### **6.1 Institutional Vision and Leadership**

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

### **Response:**



#### **Academic and Administrative Governance**

VIT is a deemed to be university governed by UGC regulations. The statutory bodies of the institute are: Board of Management (BoM), Planning and Monitoring Board, Finance Committee, Academic Council, and Board of Studies, constituted as per the UGC norms.

The deployment of world class education starts with curriculum framing by a school level committee which benchmarks the programme against renowned institutes. The proposed content and pedagogy is recommended by the Board of Studies to Academic Council for approval. The approved programmes are explored for implementation by the Planning and Monitoring Board and further taken up with BoM for final approval. Once approved, the programme is further refined based on the feedback by students, teachers and industry experts. The teachers are empowered to adopt or change the content based on advancements in the field and student's feedback. The IQAC recommends innovative practices and ensures effective implementation.

To become world class, an institute should be innovative and research oriented. To facilitate research ambience and innovative culture, separate offices of Academic Research and Sponsored Research & Industrial Consultancy were created. These offices in consultation with Research Advisory Committee formulate policies and procedures on all matters related to Research and Consultancy for approval by P&M

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and BoM. Another office, Patent Cell facilitates patenting for faculty and students. In addition, specialized research centers for trans and inter-disciplinary areas have also been created. A unique Innovation Lab functions to promote inter-disciplinary projects. Each course has a separate module to address the current development connected to the field wherein the participation of industry experts brings out the latest developments. The Schools and Research Centres conduct conference/ symposia/ hackathons for promoting research and innovation.

Happy people are the most productive. The HR office explores and recommends welfare schemes like medical benefits, performance incentives, sabbatical leave, on-campus accommodation *etc.*, for faculty and staff. The Academic Staff College organizes relevant training programmes for the professional development of faculty. The proctoring scheme that operates under O/o Students' Welfare helps the students to resolve academic and personal problems. A team of counsellors in the Office of Students' Welfare is also available for psychological counselling.

Collaborative Research is essential for visibility and funding. VIT established the office of International Relations to collaborate with foreign Institutes for research, faculty and student exchange. The office of Sponsored Research & Industrial Consultancy and office of Placement bring in industry collaboration in terms of consultancy, internships and placements. In addition, Office of Ranking and Accreditation helps to enhance national and international visibility.

Without serving the society, no research is complete. VIT participates in various social welfare schemes targeted towards the community through Centre for Sustainable Rural Development and Research Studies, Universal Higher Education Trust, NSS, NCC, Youth Red Cross and various clubs and chapters. Centre for Disaster Mitigation and Management creates awareness on survival methods during calamities. The VIT community radio serves the farmers and general public through various interactive programmes.

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

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

#### **Response:**

VIT has adopted decentralization, participative management and empowerment in all academic, administrative, finance, research and outreach activities. The administrative structure reflects completely decentralized system with well-defined roles and responsibilities. VIT provides ample opportunities to its major stakeholders *viz.* students, faculty, staff, alumni and employers to participate in the development of the institute. The stake holders have representations in all statutory bodies and university level committees / cells.

There are 17 Schools and 10 Research Centres headed by Deans and Directors, entrusted with the responsibility of maintaining high standards in academics and research. The periodic meetings organized at various levels i.e. Institution, School and Department ensure smooth communication among administrators, faculty, staff and students and effective implementation of the decisions. The leadership quality among

students is cultivated by empowering them to organize major techno-cultural festivals.

In academics, the faculty members decide on all matters right from formulation of syllabus to question paper setting and evaluation. FFCS in VIT allows students to select time-slot, courses and teachers, empowering their own pace of learning. To improve the teaching-learning process, feedback is obtained from the students through quality circle meetings and end semester feedback. The course content can be modified based on the inputs from the stakeholders, with the approval of the school Dean and subsequent ratification by the Board of Studies, which comprises of industry experts, external academia and internal faculty members. Various committees at school level involve faculty, staff and students to independently manage the activities related to quality assurance, placement and training, alumni engagement, clubs and chapters, conduct of conferences, seminars, workshops, guest lectures and arrangement of field visits.

In Academic research, scholars can choose their guide and research problem. The doctoral committee directs the course of research, right from prescribing course work, approving research topic, monitoring the progress and approving the submission of synopsis and thesis. Continuous progress in academic research and funded projects is facilitated by School Deans and Centre Directors.

VIT follows a decentralized approach in financial management. At the department level, the budgetary requirements for teaching, learning, research and outreach activities are consolidated and forwarded to the School Dean. A team of senior faculty members of the School analyze the requirements and prepare the budget. The School level budgetary requirement is submitted to the University level committee. The committee finalizes the draft budget for the Schools and forwards the institutional budget to the Finance Committee for approval. After approval by the Finance Committee, the approved budget is utilized through Purchase to Payment (P2P) portal which connects buyers, sellers, purchase and finance offices.

The institute attaches high priority to outreach activities for the benefit of society. The students and faculty members take part in many socially relevant projects for community welfare through various outreach events organized by the CSRD, NSS, YRC and various clubs and chapters. VIT community radio serves the general public through various programmes conceived and aired by the students.

File Description	Document	
Any additional information	<u>View Document</u>	
Link for Additional Information	View Document	

## **6.2 Strategy Development and Deployment**

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

#### **Response:**

Strategic plan has been formulated in tune with the vision of the institute to excel in teaching, research and innovation. In the year 2016, the plan was chalked out to make VIT globally visible and to achieve a rank within top 500 among the world institutes. Today, after three years of execution of the plan, the institute has been chosen as one of the Institutes of Eminence, by the MHRD, Govt. of India.

The salient features of the strategic plan are:

- To offer more programmes and courses in multi- and/or trans-disciplinary areas
- To improve the percentage of faculty to be trained in India and abroad through collaborative research
- To increase the global visibility
- To increase the percentage of foreign students
- To increase the number of research labs including a centralized sophisticated instruments' facility to promote cutting edge research
- To increase the number of academic activities with strong focus on applied research with social impacts

One of the successfully implemented activities under global visibility is to improve in the national and international rankings. Towards reaching this aspect of the strategic goal, the Institution had formulated the following set of action plan.

- Focus on Interdisciplinary research areas and establishing research infrastructure including (i) Smart manufacturing lab (ii) 3D printing and additive manufacturing Lab (iii) Cyber-physical systems lab (iv) Bioactive therapeutics lab (v) Autonomous vehicle lab and (vi) Wearable technologies lab and (vii) Sophisticated instruments facilities for advanced characterization
- Introducing interdisciplinary programmes in emerging areas like Data Science, Cyber Physical Systems, Wearable Technologies, Artificial Intelligence and Deep Learning
- Research to focus on Product Development, IP Generation and Commercialization.
- High quality talent acquisition
- To ensure high faculty retention the institution implements a set of measures and policies including implementation of 7th Pay commission pay scales, complete academic freedom and conducive research ambience
- Emphasis on publishing in peer reviewed journals with high impact factor
- Sponsorship of publication fee for open access publishing
- Financial assistance for participation in reputed international conferences
- Special scheme for inviting international Professors as Visiting / Adjunct Professor
- Initiatives to admit international students
- Establishing functional collaboration for Research / Faculty Exchange / Student Exchange with top 200 universities
- Enhancing interaction with various industries for student internships & projects, consultancy and industry sponsored laboratories
- Securing international projects and strengthening international collaboration and joint research

These initiatives over the last 4 years have resulted in improvement in ranking by various agencies, some of which are listed below.

- Consistently ranked high in NIRF In top 20 ranks in Engineering and University categories
- Ranked within 801 1000 in QS and THE World Universities Ranking
- Three Departments of VIT finding place in the QS subject ranking (2019)
  - Computer Science & Information Systems (451-500)
  - Electrical & Electronic Engineering (451-500)
  - Chemistry (501-550)
- Ranked First under the private institutions category in Atal Ranking of Institutions on Innovation

Achievements (2019)

The institution has received Letter of Intent for "Institution of Eminence" status by MHRD

#### Credentials of VIT - Accreditations / Rankings / NIRF (National Institutional Ranking Frame Work) No. 15 in Engineering Institution - 2020 First University in India to get QS 4 Star Rating No. 16 in University Category - 2020 QS 5 STAR Rating for 5 Categories No. 55 in Management Institution - 2020 (Teaching, Employability, Facilities, Innovation and No. 28 in Overall - 2020 No. 1 Among private players (Engineering) for 5 consecutive years Web of Recognized by Web of Science (WoS), the world's most Science Group trusted database, for the "India Research Excellence -NAAC (National Assessment and Accreditation Council) Citation Awards 2019" under the Deemed or Private Accredited in 2015 - A grade University category Accredited in 2009 - A grade Completed 3 Cycles & GOING FOR 4th CYCLE THE WORLD and ASIA UNIVERSITY RANKINGS Ranked in the Top 801-1000 in 2020 (World Ranking) ABET (Accreditation Board for Engineering and • Ranked in the Top 201-250 in 2020 (Asia Ranking) Technology), USA Ranked in the Top 251 - 300 in 2019 (Young University Ranking) 3 Times Accredited QS WORLD, ASIA AND BRICS RANKINGS • 10 B.Tech Programs - Vellore Campus 4 B.Tech Programs – Chennai Campus Ranked in the Top 801-1000 in 2020 (World Ranking) Ranked in the Top 228 in 2020 (Asia Ranking) 176th in 2019 (BRICS) OS WORLD UNIVERSITY RANKING BY SUBJECT IET (The Institution of Engineering and Technology), UK Ranked in the Top 500 QS World University Ranking Accredited in 2005 by Subject EEE, Chemical (Rank: 301-350) in 2020 NBA (National Board of Accreditation) Computer Science and Information Systems, Mechanical Accredited in 2009 (Rank: 401-450) in 2020 Accredited in 1998 Chemistry (Rank: 451-500) in 2020 GOING FOR 3<sup>rd</sup> TIME ACCREDITATION QS I.GAUGE FICCI (Federation of Indian Chambers of DIAMOND University Rating in 2018 Commerce & Industry) "Excellence in Enabling Research Environment" - 2019 ACBSP (The Accreditation Council for Business "Excellence in Internationalization of Edu." - 2018 Schools and Programs), USA ACBSP "Excellence in Faculty" - 2017 VITBS is fully Accredited for 10 years from 2017 • " University of the Year" - 2016 ACCA (Association of Chartered Certified MHRD UGC graded autonomy in 2018 Accountants, UK) Government endorsed recognition for VIT BBA Programme is Accredited from 2017

File Description	Document
Strategic Plan and deployment documents on the website	View Document
Link for Additional Information	View Document

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

#### **Response:**

### **Statutory Bodies**

All the statutory bodies of the institution are constituted as per UGC norms, and they meet periodically to formulate polices, critically review the progress made and offer suggestions for institutional development.

The Board of Management (BoM), constituted as per UGC norms, is the apex body which formulates all policies and procedures and provides academic and administrative leadership.

The Planning and Monitoring Board translates the strategic vision of the institution into concreate yearly plans and monitors their implementation.

The Academic Council reviews the regulations, curricula and syllabi of various academic programmes offered and recommends for approval by the Board of Management.

The Finance Committee approves the budget, monitors the budgeted spending and reviews the internal and external audited reports. It also monitors the resource mobilisation process and ensures allocation of resources for future needs.

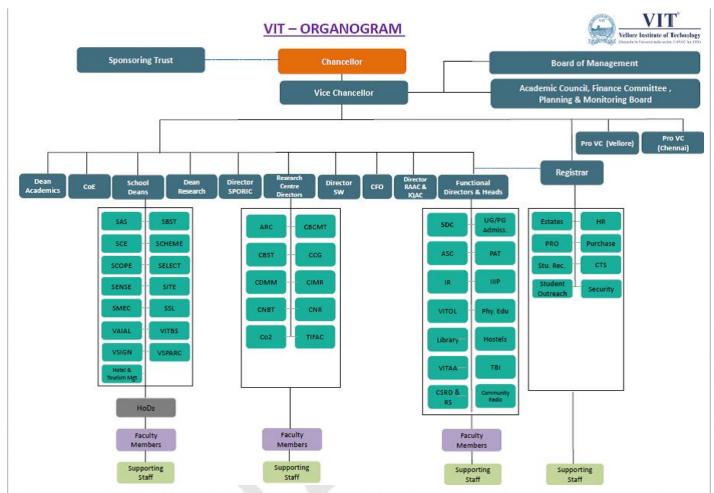
### **Administrative setup of the University**

The day-to-day functioning of the institution is taken care of by the Officers of the University, namely, 1) Vice-Chancellor 2) Pro Vice-Chancellors 3) Registrar 4) Controller of Examinations 5) Chief Finance Officer 6) Dean Academics 7) Dean Academic Research 8) Director Sponsored Research and Industrial Consultancy 9) Director Student Welfare 10) Director Ranking & Accreditation 11) Deans of Schools 12) Directors of Research Centres 13) Functional Directors and 14) Heads of Departments

Vice-Chancellor is the Principal Executive Officer of the institution who leads all its activities, and is responsible for implementation of the decisions of the statutory bodies. The Pro Vice-Chancellors assist the Vice-Chancellor in all academic and administrative activities.

The Registrar is the administrative head of the institution, and coordinates all administrative activities. The Registrar represents the institution in all official meetings and legal proceedings.

The institution has 17 Schools and 10 Research Centres. Each school is further subdivided into departments. Faculty members are attached to the departments, and report to department heads. Schools are headed by Deans. Research centres are headed by Directors who are responsible for identifying cutting edge research areas and promoting research activities. Functioning of the Schools, laboratories and research centres is facilitated by faculty, administrative and technical staff.



The institution has well-defined and transparent policies including service rules, recruitment procedures and promotion norms. The institution also has various grievance redressal bodies such as Internal Complaints Committee (ICC) and grievance redressal committees for students, faculty and staff members.

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

### 6.2.3 Institution Implements e-governance covering following areas of operation

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

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

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

### **6.3 Faculty Empowerment Strategies**

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

### **Response:**

### **Performance Appraisal System**

VIT follows a comprehensive Performance Appraisal System (PAS) to assess the performance of teaching and non-teaching staff on an annual basis. The Key Result Areas (KRA) for teaching and non-teaching staff members are defined separately on a 100 point scale. The KRA for teaching staff includes teaching, research and service with appropriate weightages. For Assistant Professors, more weightage is given to teaching, whereas for Professors the emphasis is more on research.

The office of Human Resources prepares the draft PAS and circulates it to the employees for suggestions/feedback, which are deliberated in the meeting of Deans and Directors chaired by the Vice Chancellor. The approved PAS is effected for the academic year.

Teaching staff carry out the self-appraisal, which is followed by that of HoDs and Deans. Besides, students' feedback on the teaching-learning process is included as a part of the PAS.

Performance appraisal of non-teaching staff is carried out based on the nature of the job they perform. There are 5 categories of non-teaching staff, namely, Section Heads and other officers / Laboratory support staff / Sr. Asst., Jr. Asst., Secretary, Data Entry Operators / Attenders / Electrical Maintenance Section, Security personnel and Drivers.

Based on the performance, maximum of one month salary was provided as an incentive.

A well-defined, transparent, norms-based promotion scheme is followed for teaching and non-teaching staff. Outstanding performance by a staff member is reckoned for fast track promotions.

#### Welfare Measures

The institute recognises the service and dedication of the teaching and non-teaching staff members and offers them various welfare measures such as

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- Annual Performance Incentive up to one month salary
- Employment Provident Fund & Gratuity
- LIC Pension Scheme
- Mediclaim Insurance / Accident Policy for Employees and Dependents
- Round the clock on-campus health centre facilities to cater to the medical requirements of employees and their family members
- Encashment of Earned Leave
- Women employees can avail 26 weeks of maternity leave
- Residential accommodation in campus on subsidized rent, based on availability
- Teaching staff are provided PhD allowance, sabbatical leave to pursue higher education/research, seed money for research, and financial support for attending conferences
- Teaching staff are encouraged to take up consultancy work
- Reward for publication of quality research papers / patents/ projects/ and books
- Admission at VIT for children of employees. 50% of the tuition fee is waived for the wards of non-teaching staff to pursue higher studies in VIT. In addition, an educational allowance of Rs.5000 is provided to the wards of non-teaching staff (per child) irrespective of the number of children studying in educational institutions other than VIT
- Laptops are issued to teaching staff while at service to pursue research and academic work

File Description	Document
Any additional information	View Document

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

#### Response: 45.4

# 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

2018-19	2017-18	2016-17	2015-16	2014-15
876	760	680	820	570

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

Other Upload Files	
1	View Document

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

Response: 21.6

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

2018-19	2017-18	2016-17	2015-16	2014-15
22	21	25	22	18

File Description	Document	
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	<u>View Document</u>	
Any additional information	View Document	
Link for Additional Information	View Document	

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

Response: 45.72

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

2018-19	2017-18	2016-17	2015-16	2014-15
950	780	760	670	580

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

### 6.4 Financial Management and Resource Mobilization

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

### **Response:**

The financial planning and budgeting (operational expenses and capital investments) is an integral part of annual academic planning at the institute. The institute follows the procedure listed below to mobilize resources and utilizes the fund for its activities in a systematic manner.

- 1.By collection of tuition fees from Indian students, as approved by the fee committee, through account transfer or demand draft or online transfer.
- 2. By attracting students from foreign countries and NRI / OCI students which will facilitate additional resources in foreign currency.
- 3. By getting 12 (B) status from University Grants Commission (UGC).
- 4. By promoting consultancy services which will result in collaborations and brand building.
- 5.By encouraging faculty members to apply for funding from various Government agencies which will help to improve the research output, infrastructure landscape by acquiring hi-tech equipment, manpower with appropriate skill set and overheads to the Institute.
- 6. By translating the patents and other IPR generated by the Institute into commercial products and process.
- 7. By facilitating incubation / start-ups with the Technology Business Incubator (TBI) to utilise the infrastructure available and expertise from the faculty.
- 8.By establishing VIT Research Park, to be a powerful innovation and incubation ecosystem by leveraging the experience gained from TBI, IPR Cell and Entrepreneurship Development cell.
- 9. By offering new programmes or interdisciplinary courses in emerging areas, which are in sync with the industry requirements
- 10. By offering courses for industry personnel, working people either on part time or weekend basis. This will help the working population without disturbing their schedule and the Industries to collaborate with VIT.
- 11. By offering value added courses through ODL, MOOC, NSDC and Executive MBA Programmes.
- 12. By exploring the avenues available through MOU's signed with foreign universities
  - 1. By offering Dual Degree / Joint Degree programmes.
  - 2. By students coming to VIT for one semester under Semester Abroad Program (SAP).
- 13. By setting up of Endowment funds to recognize meritorious students by offering them scholarships, gold medals and cash prizes.
- 14. By mobilising funds through interest earned on corpus fund.
- 15.By establishing more student chapters and clubs and drive their activities through sponsorship/enrolment etc.
- 16. By conducting Short term courses, workshops and training programmes for people from Industry, Academics and Students to bridge the gap and knowledge transfer.
- 17.By collecting rent from shops let out, cafeteria, mess and health center, besides electricity and water charges as per consumption.
- 18. By collecting hostel rent from students.
- 19. By providing Guest house services to visitors on chargeable basis.
- 20. By creating corpus from Alumni contributions.
- 21. By exploring funding from Corporate / International Foundations/ NGO's etc.

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- 22. By attracting donations to the trust corpus by leveraging the tax exemption availed under 80G of the Income tax act.
- 23. For infrastructure development, the institute avails term loan facilities from its bankers as and when required.

File Description	Document
Link for Additional Information	View Document

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

Response: 340

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

2018-19	2017-18	2016-17	2015-16	2014-15
50	100	40	150	0

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

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

Response: 41.55

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

2018-19	2017-18	2016-17	2015-16	2014-15
9.15	3	4.90	2.50	22

File Description	Document
Institutional data in prescribed format	View Document
Annual statements of accounts	View Document

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

### **Response:**

VIT follows the mercantile system of accounting and complies with the guidelines and Indian Accounting Standards (Ind AS) recommended by the Institute of Chartered Accountants of India. It has a well laid down internal control mechanism by internal auditors, audited independently every quarter, apart from in depth annual statutory audit carried out by reputed external auditors. Periodical monitoring of expenditure, compared with the approved budget, is carried out. The institution's financial stability has been rated as "AA-" consecutively for the last four years by the credit rating agency ICRA, which indicates a strong and stable financial position.

#### **Internal audit**

Internal audits are conducted once in every quarter. M/s ThinkSynQ Solutions Pvt. Ltd., Chennai is involved in conducting internal audit during which vouching of bills, random checking and scrutiny of high value bills are done. The audit is generally conducted for 10 days and the report is submitted to the institute within a month.

The internal audit is used to monitor the accounting process on a continuous basis. The audit objections raised during internal audit are rectified and recommendations for process improvement are implemented.

### Typical audit objections raised and addressed are

1. Purchase order to be released only after ensuring due budget approval in that financial year.

This is achieved at the indenting stage itself by processing everything through in-house software which checks for budget approval. (FY 16-17).

- 1. For all outsourced services, detailed working of amount payable is to be provided and cross verified with the user department/center. (FY 15-16).
- 2. For payments made for transit insurance of goods, the original receipt from the insurance company/insurance policy is to be ensured. (FY 15-16).

### **External audit**

External audit is conducted every year. M/s. Athmanathan & Co., a renowned Chartered Accountants firm in Vellore conducts the audit. The audit starts (for the previous year) at the end of April and is completed in September. For the current year (for half-yearly period), the audit starts in December and ends in a month.

### Mechanism for settling audit objections

During audit, the queries raised are addressed by the finance team and the rectification entries are made. Explanation to the queries is given within 15 days' time and the rectification entries are made within the next 10 days.

Auditor reviews the audited financials, and after discussion with the Management, signs the financials before filing of returns with the income tax department. Areas of improvement are suggested by the auditor for implementation in the subsequent year. Typical suggestions that were implemented in the last five years are:

- 1. Bank reconciliation procedure for various e-Transfers
- 2. TDS reconciliation with 26AS
- 3.GST implementation on various auxiliary services
- 4. Maintenance of adequate supporting documents for payment of donations

File Description	Document
Any additional information	View Document

## 6.5 Internal Quality Assurance System

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

### **Response:**

### I. Institutionalizing Experiential Learning

Since 2010, VIT has been extensively following the Project Based Learning (PBL) pedagogy. The implementation of PBL has facilitated hands-on learning and resulted in substantially enhancing the higher order thinking skills of students. Some of the important learnings from over six years of practice of PBL are as follows:

- Provides a strong context for learning new ideas and concepts
- Enables accelerated learning and facilitates higher order thinking
- Appeals to slow learners and motivates them to perform well
- Reduces the gap between theory and practical applications

The IQAC reviewed the implementation of PBL in 2016and decided to take it a step further by proposing

With successful experiences in five schools, organising Hackathon, Makeathon, Codeathon, Chemathon, Buildathon, Caseathon has evolved as a regular event. The institution allocates annual budget for organising the 'hackathons', to encourage activity based learning. In a few instances, 'Hackathons' have resulted in generation of Intellectual Property.

To promote experiential learning, schemes such as Summer Research Grant Programme and Fast Track

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Research Initiative were floated by two schools in the year 2016, which proved to be a very successful venture. This summer research scheme was institutionalized from the AY 2018-19 onwards and the winners are honoured by the institute. In addition, UG students are encouraged to take-up projects in niche areas namely 3D printing, Wearable technology, Bio-inspired design, IoT & Cyber Physical Systems and VR & AR.

### II. Institutionalising Review of Teaching-Learning Process

The IQAC institutionalized the process of reviewing the teaching-learning process through Student Quality Circle Meetings (QCMs), Students' end semester feedback, Outgoing students' survey and academic audit. Students' feedback is used as an important tool to close the loop for the teaching-learning process.

The student QCMs are conducted at least twice in a semester to get the feedback on teaching-learning process from the students to take steps for mid-course corrections. The suggestions received from the students are passed on to the concerned faculty and HoDs to review and take suitable action. The students' end semester feedback on teacher, course and lab infrastructure is collected through institutional LMS. The outgoing students also provide valuable feedback on their overall academic experience. The feedback collected are analysed and presented in the IQAC meetings. The meetings result in making recommendations for improvement in the learning experience of students.

Academic audit is regularly conducted by IQAC to review the academic process in the schools. The guidelines for audit are prepared as per NAAC/UGC quality framework and a brain storming session on the audit report is organized to review and recommend measures for quality enhancement.

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

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

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

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

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

### **Response:**

#### A. IN ACADEMIC DOMAINS

#### i. Curriculum

The institution undertook a major curriculum revision exercise in 2015 and introduced the Curriculum for Applied Learning.

### ii. Technology Enabled Learning

VIT has introduced digital tools and platforms in all aspects of teaching-learning and evaluation.

- Deployment of custom-developed comprehensive learning management system
- All the class rooms are ICT enabled
- Smart class rooms equipped with high quality Cisco Meeting Server for video conferencing
- Provision for students to enroll for credit transfer under SWAYAM-NPTEL
- Biometric attendance system
- Digital Evaluation System from 2016 onwards

### iii. Examination Reforms

- 60% weightage for continuous assessment and 40% weightage for semester end examinations
- Introduction of open book / open note book examination in one assessment

### iv. Research Support

- Establishment of 10 interdisciplinary research centres
- Research incubation through annual VIT Seed Grant up to Rs. 3 Lakhs
- Raman Research Awards to encourage research scholars to publish in journals of repute
- Post-Doctoral Fellowship to attract bright Ph.D. holders

## v. Innovation Ecosystem

- Establishment of Patent Cell, Institute Innovation Cell and Product Development Center
- Full financial support for patent filing
- Financial support for students for product development and participating in international events
  - Introduction of multiple innovation challenges to students through competitions

These initiatives have culminated in VIT being ranked as No. 1 among private institutions under "Atal Ranking of Institutions on Innovation Achievements"

#### **B. IN ADMINISTRATIVE DOMAINS**

### 1. Attracting Quality Faculty Members

In recognition of quality of faculty members, VIT was awarded "Excellence in Faculty" by FICCI for the year 2017.

- 7th pay commission recommended salary structure
- Annual performance based incentive schemes (13th month salary)

### .ii. Placement and Training

- Introduction of Soft Skills training to prepare students for Industry 4.0
- 40 hours of specialized training on advanced coding, algorithms and logic
- International Internships and Placements
- Summer internships for Pre-Final year B.Tech students

### iii. Internationalization

VIT has been awarded "Excellence in Internationalization of Education" award by FICCI for the year 2018. The initiatives taken to improve the internationalization are:

- Through joint research publications, joint international workshops / conferences / seminars
- Increasing foreign student acquisition through awareness campaigns and promotions
- Appointment of faculty from foreign countries as Adjunct professors
- Conducting conferences abroad

### iv. Strengthening Accreditation and Ranking

VIT received the following important accreditations and rankings and has been recognised as an **Institution of Eminence** by GoI

**ABET accreditation:** 14 Engineering programmes

ACBSP (USA) and ACCA(UK) accreditations for MBA and BBA programmes respectively

**NIRF Ranking**: VIT has been consistently ranked among top 20 Universities in the last four years

World Rankings

- QS & THE World University Rankings (801 1000)
- First University in India to get QS 4 Star Rating
- QS World University Ranking by Subject:
  - Electrical and Electronics Engineering (451-500)
  - Computer Science & Information Systems (451-500)
  - Chemistry (501-550)

### v. Students' Support System

- Counselling division with 13 professional counsellors to address students' problems
- 203 student clubs and chapters mentored by faculty to support co-curricular and extra-curricular activities

### vi. E-Governance

• A dedicated Software Development Cell has been established in 2016 for in-house development of required software to facilitate e-governance

File Description	Document
Any additional information	View Document

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### **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:**

"Social Development" & "Respect for All" are two of the core values of Vellore Institute of Technology. As a measure of translating these core values into concrete action plans, the institution had taken several measures on the promotion of gender equity in the last five years.

In all its activities, the institution ensures the participation of women. For instance, the STARS program which provides free education for the top ranking students from all districts of Tamil Nadu, ensures free education to one top ranking male and female student of every district.

As part of the curriculum, courses on Gender, Culture & Technology, Ethics & Values, Right to Education - Women, Minority, Equality & Environment and Gender, Caste & Law address issues related to gender. As part of these courses, students learn the issues related to women empowerment, female feticide prevention, child abuse, responsible living and others.

Some of the specific measures initiated by the institution to ensure female students participation in all academic, co-curricular and extra-curricular activities are

- Special drive to admit female students in diverse programs of study
- Providing for adequate and safe hostel space for female students
- Special security and transportation, during night hours, for female students to engage in various activities like studying in library, attending group activities and extracurricular & co-curricular activities
- In night hours, women security guards to accompany female students during their transit
- 24x7 Availability of lady doctor in the campus hospital and lady nurse in every hostel block cluster
- A gynecologist visits the campus hospital every week to cater the needs of female students and staff
- Gender sensitization programs for all students, faculty and staff members
- Special self-defense workshop for female students in their hostels
- Special sports promotion programs for female students for instance VIT has a female football and cricket teams that takes part in inter University Competitions
- Exclusive swimming pool and gymnasium for female students
- Exclusive professional counsellors for female students
- Common room for female students in all academic blocks
- Motivating to take up core and dream offers in top ranking industries
- Exclusive placement drive for female students by inviting companies like IBM, Capgemini, Vestas-Preference, CGI-Thought works, Amazon, Cisco, Ingersoll Rand, Saint-Gobain and Hero Motors
- A mandatory workshop on Prevention of Sexual Harassment in workplaces was organized for all faculty members to create and maintain an environment free of sexual violence, harassment, exploitation and intimidation
- A daycare center to cater to the needs of young kids of faculty and staff members
- The entire campus is covered with 3,016 CCTV cameras to provide a sense of security to

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inhabitants particularly women

• The institution employs **48**-women security guards

The Institution also conducts many awareness programs for female students. Some of the programs organized include

- Celebration of International Women's day every year
- Early stage entrepreneurship development programme organized by Climate Collective
- Workshop on economic empowerment of women

Thus the Institution ensures to a gender-sensitive ambience, gender-sensitive people and special drives for women empowerment.

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

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

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

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

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

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

- Solid waste management
- Liquid waste management
- Biomedical waste management
- E-waste management
- Waste recycling system

### Hazardous chemicals and radioactive waste management

#### **Response:**

### Solid waste management and waste recycling system

Organic and green waste, recyclable waste and sanitary waste are collected in different coloured bins. Segregated food waste, vegetable peels and other kitchen wastes collected from the canteens and food joints on campus are composted. Similarly, garden waste and dry leaves are also composted. Recyclable waste are collected and sold to vendors for recycling. Sanitary waste is given to a certified agency on alternate days for incineration. The institute's waste management & recycling policy supports our goal to reduce the amount of wastes entering the waste stream.

### **Liquid Waste Management**

The total water requirement during operation is 5412 KLD. The wastewater generation from the project is about 3379 KLD, which is treated in the sewage treatment plants of 8 different capacities of STP with a handing capacity of 3920 KLD. This is then recycled and used for flushing purposes or watering the gardens and lawns in the campus. The sludge settled in the STPs is removed 4 times a month and composted. The compost is used as manure for the gardens. Thus, the entire waste water generated in the campus is well treated and effectively used.

### Biomedical waste management

Objectionable non-hazardous medical waste is typically generated in extended care facilities and ambulatory health care services. Adherence to good personal hygiene and prudent sanitation practice affords adequate protection to individuals involved in the handling and disposal of this type of waste. At VIT, biological wastes are safely disposed through 'Ken Bio links Pvt. Ltd'.

VIT adheres to and practices a sustainable and healthy waste management system that is aimed at making the campus green and eco-friendly.

### **E-Waste Management**

E-wastes, which are regularly collected from source points, are sent to e-waste storage area. The e-waste generation at campus is approximately 2-tonnes/year. E-waste mainly consists of laptops, desktops, servers, projectors, biometric devices, condemned electronic equipment, printers, scanners and cartridges. M/s Veltech systems, Chennai, is the authorized vendor currently collecting e-wastes from us.

### Hazardous chemicals and radioactive waste management

0.01NCr (IV) used in lab is converted into Cr (III) and discharged to the water treatment plant. Silica gel is widely used in TLC column but it is non-toxic and chemically inert, and sent to the recycler. Strong acids and bases are neutralized and disposed to the water treatment plant. Overall, labs using chemicals and solvents follow the necessary safety precautions in the usage and disposal of hazardous chemicals. All equipment using radioactive elements for their functioning are carefully salvaged as per the instructions of the respective user manuals. Institution doesn't explicitly use radioactive materials in its research.

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

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

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

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

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

### 7.1.5 Green campus initiatives include:

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

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

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

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

- 1. Green audit
- 2. Energy audit

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

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

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Certification by the auditing agency	View Document
Certificates of the awards received	<u>View Document</u>
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
Details of the Software procured for providing the assistance	View Document
Any other relevant information	<u>View Document</u>

# 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:**

While enjoying the wide diversity of culture among its students and faculty, VIT has been successfully maintaining harmony and peace all through these years without any single episode of campus unrest. VIT remains committed to the culture of celebrating diversity leading to a higher level unity. An atmosphere of

a 'home away from home' is vital for students and faculty, for nurturing a harmonious academic environment.

Festivals are a celebration not only of our beliefs, but also of our differences. At VIT, festivals like Pongal, Diwali, Christmas, Eid, Navaratri, Durga Puja, Onam, Ganesh Chaturthi, Bihu, Baisakhi, Ugadi, Sargam, Lohri, Holi and Gudi Padwa are celebrated with gusto.

VIT has a plethora of Literary Associations for various Indian languages including Tamil, Telugu, Malayalam, Kannada, Hindi, Bengali and Marathi. These students participate in inter-university fests. They also conduct a dazzling array of events covering different aspects of the languages through writing and speaking competitions, cultural events and festivals in the campus. These activities give them an opportunity to portray their skill and command over their native languages, alongside their curricular performance.

VIT every year organizes "Infusion"- a showcase of cultures around the world. This program by students of various nationalities, is a magnificent display of the diverse international culture.

Another annual event "AIKYA" is a parade that showcases the vast heritage of India and its various cultures. It is also a show of unity in diversity. In AIKYA, students from different states of India parade in their traditional costume depicting the rich cultural heritage and diversity of different states.

Furthermore, cultural festivals like Riviera, Vibrance, Garba Night (Navratri celebrations), Bengali Night and Thanima (Onam celebrations), celebrate various aspects of our cultural heritage like dance, music and food, all around the year. Events like Sangamam, hosted by the Tamil Literary Association and Sahiti, hosted by the Telugu Literary Association, have dance, music, plays and traditional games and help in fostering mutual respect for the rich regional heritage.

VIT offers STARS (Support The Advancement of Rural Students) Scheme to students from socioeconomically weak backgrounds to help such students to overcome obstacles in their educational progress and excel in their respective fields. As part of this scheme, top ranking male and female students of every district in Tamil Nadu, are offered complete free education at VIT including tuition, boarding, transport and all incidental expenses.

Apart from this, VIT hosts several agricultural expos in support of local farmers, and offers its sports facilities for tournaments among local schools. Apart from these socioeconomic programmes conducted by the Institute, the Institute also supports a large number of student-based Non-Governmental Organizations like Juvenile Care, Helphen, Anokha, Youth Red Cross and Fepsi Who do a vast body of public work in areas like education of children and raising awareness on public health.

True to the motto "A Place to Learn, and A Chance to Grow", VIT focuses on growth of not only on knowledge, but also the holistic development of integrated personality of the students.

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

Vellore Institute of Technology aspires to build the holistic development of its students and employees and accords due emphasis on the inculcating Constitutional and Social responsibilities. The institution organizes various events towards this objective.

A representative list of activities focused on inculcating the values and responsibilities as a responsible citizens are

- Model United Nation VITMUN every year in the months of August September every year. The Model United Nations helps students to understand the various international issues including climate change, global hunger, water crisis and sustainable development
- "Democracy Wall" a free speech campus initiative in collaboration with The Print
- "Voter Enumeration and Awareness program" organized every year in collaboration with State Election Commission
- Annual Union Budget Discussion by eminent economists
- The vibrant student clubs like the **VIT Fifth Pillar provide platform for students to discuss about** "Every vice nagging society and the human condition".
- The debating club of the VIT DEBSOC VIT hone the debating skills of students
- Hindi, Bengali, Marathi, Telugu, Kannada, Malayalam and Tamil Literary Associations to create awareness about the richness of our languages and to appreciate the rich diversity of our culture

The detailed activity reports of these clubs are given in the annexure.

Over and above this the Institution also initiates measures to inculcate the sense of social responsibilities among students and employees. Some of these measures are

- Visits to orphanages and old-age homes in and around Vellore and Chennai
- Blood donation camps in the campus at frequent intervals in which students and faculty members actively participate. For instance in the calendar year 2019, 900 units were donated in 2 number of blood donation camps.
- Adaptation of five villages namely, Peenjamandai, Melmoil, Mailpatti, Perampattu and Vallimalai, around Vellore under the Unnat Bharat Abhiyan (UBA) and working for the development of these villages through the active involvement of students
- Special drives to propagate the merits of Social Entrepreneurship among students
- Awareness campaign on Environment, Climate Change and Sustainability
- Extensive campaign against substance abuse

# Sample evidence with links

- 1. VITMUN:https://vit.ac.in/vitmun-2016-where-your-voice-matters
- 2. Voting Awareness:https://vit.ac.in/vit-staff-and-students-join-100-percent-voting-campaign
- 3. Fifth Pillar: https://vit.ac.in/vit-fifth-pillar
- 4. Debating club DEBSOC VIT: https://vit.ac.in/debsoc-%E2%80%93-vit
- 5. Social business incubator: https://vit.ac.in/vit-chennai-open-social-business-incubator
- 6. Distinguished Alumni Awards in the field of Entrepreneurship and Social Development: https://vit.ac.in/distinguished-alumni-awardees-16
- 7. Union Budget 2016-17: https://www.jagranjosh.com/articles/vit-university-analysis-on-union-budget-2017-18-1487057996-1
- 8. Union Budget 2017-18:https://timesofindia.indiatimes.com/city/chennai/parliamentarians-discuss-union-budget-at-vit/articleshow/63072137.cms
- 9. Union Budget 2019-20: https://www.financialexpress.com/education-2/vit-conclave-1-gdp-allocation-to-health-not-a-good-sign/1666028/
- 10. Blood donation camp: https://vit.ac.in/voluntary-blood-donation-camp-2019
- 11.101st Annual Conference of the Indian Economic Association: https://vit.ac.in/101st-annual-conference-indian-economic-association

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

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

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

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

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

#### **Response:**

VIT organizes national and international commemorative days, festivals and events.

#### **National Festivals**

Thai Pongal is a Tamil harvest festival usually celebrated from 14th to 16th January. Pahela Baishakh is the traditional New Year day of the Bengalis celebrated on 14th or 15th of April in the states of West Bengal and Tripura. Vaishakhi, also known as Baisakhi or Vaishakhi, is a historical and religious festival in Sikhism and Hindus, and is usually celebrated on April 13 or 14 every year. The Rongali Bihu is the most important, celebrating the Assamese New Year and the spring festival. Ugadi is the New Year's Day for the Telugu speaking people of Andhra and Telangana states, and for Telugu speaking people living in Karnataka and Maharashtra. Gudhi Padvais a spring-time festival that marks the traditional New Year for Maharashtrians is also celebrated in VIT. Besides these, Onam an annual harvest festival in the State of Kerala and Odisha Day (1st of April) for the people from Orissa are also being celebrated with fervor and joy.

# **Teachers' Day**

VIT celebrates the birth anniversary of the former President of India and a renowned teacher **Dr. S. Radhakrishnan** as Teachers' Day. That day is also celebrated as FESTIVITY DAY/GuruVITA for the faculty members.

## **International Day's Celebration**

On **World Tourism Day**, VIT organizes a flag ceremony followed by a showcasing of international students' cultural heritage through various art forms and events. **International Women's Day** is celebrated on March 8 every year at VIT. Eminent women personalities are invited to address the staff and the students. **International Day of Yoga** is celebrated on the 21st of June every year. VIT organizes a Yoga session on this day to promote the importance of Yoga in improving the mental and physical well-being of all the people in VIT. **The International Day of Happiness** is celebrated throughout the world on the 20th of March. VIT promotes positive social action to help create a happier and more caring world through various events throughout the year.

## **National Day Events**

VIT organizes **Republic Day and Independence Day** celebrations where the students and the faculty participate to the full extent. Further, to sensitize the students on the freedom struggle and to mark the 75th year of "**Quit India Movement**" and 70th year of India's Independence, a pledge taking ceremony was conducted at VIT on the 9th August 2017.

The institute also celebrates the following birth /death anniversaries of the prominent Indian personalities every year.

- 1. Mahatma Gandhi
- 2. Jawaharlal Nehru
- 3. Swamy Vivekananda

- 4. A. P. J. Abdul Kalam
- 5. Ambedkar Jayanthi
- 6. Thiruvalluvar Day in the poet's honour
- 7. Perarignar Anna
- 8. Thanthai Periyar
- 9. Thiru K Kamaraj
- 10.M. G. Ramachandran
- 11.M. Varadarasanar
- 12. Shri C. Rajagopalachari

# National/International days include

- 1. Engineers' day
- 2. Teachers' day
- 3. Vishvakarma day
- 4. Ramanujam day
- 5. Women's day
- 6. Yoga day
- 7. World book day

File Description	Document
Geotagged photographs of some of the events	View Document
Any other relevant information	View Document
Annual report of the celebrations and commemorative events for the last five years	View Document

## 7.2 Best Practices

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

## **Response:**

1. Title of the Practice: INDUSTRY INTEGRATION INTO ACADEMIA

## **Objectives of the Practice:**

The objectives of this initiative are:

- To fill the gaps between the needs of the industry and the curriculum offered.
- To foster networking and exchange of knowledge between practicing engineers/managers/scientists/technocrats, faculty members and students.
- To keep pace with the trends and disruptive changes taking place in industry.
- To have an exposure to industrial problems and practices.

• To deploy academic expertise for industrial problem solving.

#### The Context

- Lack of substantial integration with industry and other stakeholders in India has necessitated the adoption of innovative strategies to face the mammoth global challenges.
- Further, many times, industries resort to rule-of-thumb approach in their problem solving, and are denied of exposure to the research happening in the academic institutions.
- Basic research with an inclination towards industry has been happening in VIT during the past years. However, several basic issues in industry are not adequately addressed. To offset that lacuna, a strong industry interaction is imperative.
- Collaborative and cooperative research with industry could lead to direct Intellectual Property (IP) generation and/or translation into industrial realization.

#### The Practice

- The inclusion of 8th-Module Industry Guest Lecture- in all the courses has led to strong interactions between the institute and industry.
- From the Technical Answers for Real word Problems (TARP) course, the students are able to apply their subject knowledge into real-world problems of the industry.
- The project-based internships is a good learning process which brings new perspectives and is up-to-date with the industry trends.
- More than 15 industry-sponsored labs help the students to learn the concepts practically through interaction and working methods.
- Regular industry conclave meetings in every school are further strengthening our interactions with industry and its technology road maps.
- Periodic industry visits help students to update their understanding of the subject and the industry practices in each domain.
- Preparing and inspiring student minds (PRISM) is an innovative project experience organized in collaboration with Samsung.
- Industries like Honeywell, JCI, Microsoft, Texas instruments innovation challenge, Makeathon, Codeathon, Buildathon and Hackathon activities are regularly conducted in VIT to address real-world problems faced by the industry.
- Industry practitioners and standards organizations conduct codes and standards concept to our students every year.
- Industry mentors help our students through various entrepreneurship camps
- Innovative project collaboration between industry and VIT is done through cooperative knowledge creation and exchange.

**Technical Answers** 8th Module Project 15 Industry for Real world Guest based sponsored **Problems** lectures internships labs Make Code athon athon Hack Build athon athon

#### **Evidence of Success:**

Industry participation makes students learn from new perspectives and helps create rapport with industry persons. It provides greater clarity and has an impact on their placement interviews. The most meaningful aspect is that such tie-ups acknowledge and capitalize on the relative strengths of the academia and the industry.

Thanks to VIT's strategy, students are deployed on prestigious projects by the industry. Industrial mentors recognize the work done by the students, which has in turn resulted in innovation challenge awards and the prestigious ARIIA award from the Government of India in 2019. A total of 2038 Industrial expert guest lectures have been conducted so far. Industry participation in academics has resulted in 169 consultancy projects in the last five years. Industry linkages have paved the way for 1926 project-based internships and 700 plus companies visiting regularly with attractive job opportunities to our students through the "dream" and "super-dream" offers. Industry participation in academics has facilitated 298 patents published in the last 5 years. Through these practices, VIT-TBI supported 25 start-ups, conducted 9 Industry conclaves and over 107 workshops on Industry-Academia Innovative during the last 5 years.

# Innovations in Academics - TARP

# TARP (Technical Answers to Real-world Problems)

- Bicycle generator
- Chair lift
- Co-pyrolysis of Plastic waste with agro-wastes
- Operations Research Problem of a running MSME
- Enhancing the fuel characteristics of fire-wood by Torrefaction
- Automatic call ambulance and PCR van in accident
- Water ATM
- SUPER SAND
- Blind AID Kit



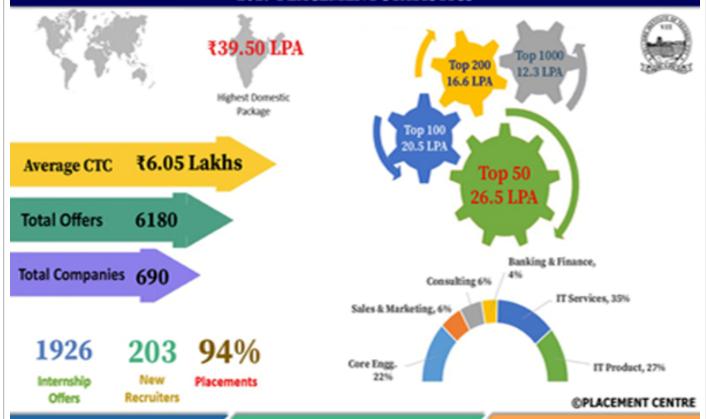
TARP Day - on 28.03.2018

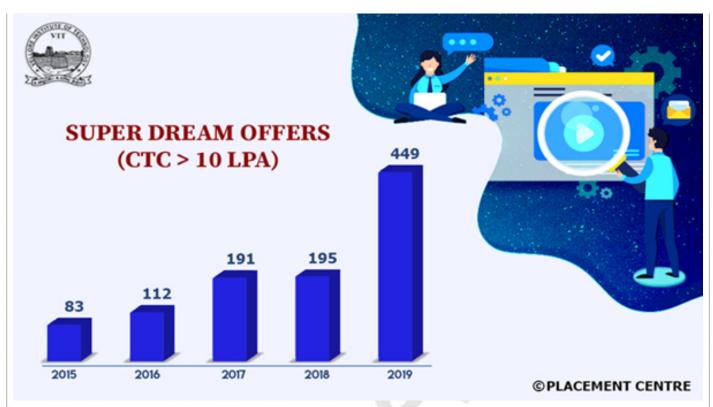






# 2019 PLACEMENT STATISTICS





## **Problems Encountered and Resources Required:**

- The availability of right person and resources for the corresponding topic is sometimes a challenge.
- In spite of some temporary barriers, VIT has been offering its best with consistent efforts to optimize the industry-institute integration through a number of strategies enabling various initiatives to thrive in the country's quest for technological leadership

# 2 - Title of the Practice: SOCIETAL ENGAGEMENT TOWARDS SUSTAINABLE DEVELOPMENT

## **Objectives of the Practice:**

VIT is making concerted efforts to engage the society with a view to fostering sustainable development. The objectives of such efforts are:

- To expose the agrarian community to the latest scientific and technological advancements in the field to improve agriculture productivity.
- To develop technical skills of the youth to improve manpower enhancing employability.
- To afford equal opportunity to the economically backward rural students to access higher education, through free education, boarding and lodging.
- To inculcate a culture of hygiene and cleanliness among the rural population in consonance with the government initiatives.
- To make Vellore city greener.

#### The Context:

Vellore has been an under-developed district in terms of education, economy and industrial growth. This calls for many initiatives in several spheres for boosting prosperity. In the Indian context, rural development assumes special significance, as about two thirds of the population still lives in villages, and

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the backwardness of the rural sector would be a major impediment to the overall progress of the economy. Therefore, VIT consciously decided to implement various measures to uplift the quality of life of rural mass in and around Vellore.

India is predominantly an agricultural country, and farming is the main occupation of the rural population. Moreover, technical developments in the field of agriculture have not percolated down to the poor. It was therefore felt necessary to create avenues for the distribution of the fruits of development to the rural population. In this context, VIT has been organizing many programmes including Agri-Expo (Uzhavar Kalanjiyam) every year.

#### The Practice

VIT, as a higher education institute, has implemented a large number of programmes through its Centre for Sustainable Rural Development and Research Studies (CSRD&RS) and student clubs and chapters. Some of the major programmes are listed below:

## I. Support the Advancement of Rural Students (STARS)

Implemented in 2008, this programme aims to provide opportunities for underprivileged rural students to pursue quality higher education. Each year, sixty-two students from rural Tamil Nadu, who top the higher secondary examinations of the State Government in their respective districts are offered free education, food and accommodation in VIT. Initially, this scheme was implemented in seven districts. Later, in 2009, STARS scheme was extended to all the districts except Chennai. A team of faculty members visit different places to counsel the students and facilitate their joining VIT under the STARS.

#### **SOCIAL IMPACT**

STARS - Support The Advancement of Rural Students







Year	Total No. of Male Students	Total No. of Female Students	Total
2008 – 2019	336	323	659







II. "Green Vellore" Project

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VIT has embarked upon the task of making Vellore a clean and green city under "Green Vellore" project.

Comprehensively around more than 15000 saplings were planted since the inception of the project, which was launched in August 2008 by eminent scientist Dr.M.S.Swaminathan.

As a part of this initiative, for the first time in the country, well grown Gulmohar trees were uprooted from the VIT campus and planted in Vellore city.

## III Palar River - Clean Project

River Palar, which covers about 4 km in Vellore corporation limit, is the prime water source for Vellore City and nearby villages. The river was a polluted mass of water due to dumping solid and liquid wastes and growth of *Prosopis juliflora*, a shrub known for depleting water table. VIT, in collaboration with Civil Society Organizations, has initiated the Clean River Palar Project to restore the livelihood of the river.

# **University Social Responsibility**

# Job Mela for non VIT students

# Cleaning Palar River





**Before Cleaning** After Cleaning

No. of Registration: 6525 No. of Companies Participated: 65 No. of candidates selected: 866

Phase I: New Bridge to Old Bridge - 28,00,000 Sq. Ft Cleaned Phase II: New Bridge to Konavattam Railway Bridge -86,00,000 Sq. Ft Cleaned

## IV. Skill Development Programme

The Centre for Sustainability Rural Development and Research Studies of VIT mainly aims on skill development training programmes for unemployed youth.

In addition to the aforementioned activities, VIT has implemented 67 societal outreach **programmes.** Some of the major programmes are

- Rejuvenation and Restoration of River Palar.
- Adoption of five villages for development activities.
- Promoting Govt. school performance and giving career guidance to school students for their future studies.

• Agriculture and Farmers knowledge management.

# SOCIAL RESPONSIBILITIES – VIT INITIATIVES

Centre for Sustainable Rural Development and Research Studies (CSRD&RS)

- Skill Development
- Village Adoption & holistic development ( UBA 2.0)
- Tribal Development
- Livelihood Development Activities
- Women empowerment
- · Poverty reduction



Agri Expo 2019 – 4500 farmers benefited by attending technical conference, exposition and workshops.



**SCE** Phytoremediation to reclaim the polluted lake of Puliyanthangal, Ranipet

- Sustainable Agricultural Promotion
- Computer Literacy and ICT Activities
- Life Skill Development for School Students
- GV School Development Scheme
- Credit linkage and Financial Inclusion
- Farmers Training Programs



100 % Govt, School Achievement Award - 2018



Jawadhu Hills Loan Mela to Tribal Farmers

## **Evidence of Success:**

VIT has been recognized for its contribution to the society. Some of the success stories are presented below:

- (i) So far, 659 students have benefitted through the STARS programme since the inception of the scheme, of which 533 students are first generation graduates. All the benefitted students have been successfully placed and have been reciprocating to the society in return. Several of them have secured covetable positions abroad.
- (ii) "Green Vellore" project has resulted in a substantial increase in the number of trees throughout the district.
- (iii) VIT has conducted 35 training programmes in 21 different trades. This has benefited 972 youth of which 312 have become entrepreneurs.

# 1. Unnat Bharat Abhiyan (UBA) - Adopted Village Details

S.No	District	Block	Name of the Village
1	Vellore	Anaicut	Peenjamandai
2	Vellore	K. V. Kuppam	Melmoil
3	Vellore	Sholingur	Valli malai
4	Vellore	Pernampattu	Melpatti
5	Tirupattur	Kandhili	Perampattu

# Financial Literacy Programme (FLP) – Nabard / Indian Bank - Vellore 15 FLP Programme - 15 Training Programme For 15 Villages 1500 Beneficiaries

(iv) From the year 2014 to 2019, CSRD&RS linked **147 Joint Liability Groups and 19 Farmers** groups for credit linkage for an amount **of Rs. 4.42 Crores with the support of NABARD and Indian Bank**, Jamunamarthur. Training was imparted and loan was distributed for goat rearing activities, dairy cattle farming, *Samai* crop cultivation and tamarind paste production. As a result of these activities, the standard of living of the villagers has showed remarkable improvement.

# **Problems Encountered and Resources Required:**

As such, VIT did not experience any difficulty in terms of resources or cooperation from the public.

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

## INCULCATION OF RESEARCH CULTURE AT GRASSROOTS LEVEL

After becoming a Deemed to be University, VIT has been committed to research by treating it as the epicenter of growth and development in all directions. Such an approach has always been driven by the farsightedness of a robust research culture that is imperative for building an ideal society which aims at development of the people and the country in its entirety. This would in turn, mean that research culture is fundamental to the growth of a society, as it would groom a potential and knowledgeable population with high sense of rationality and utmost commitment to society. However, admittedly, unlike the developed countries, a culture of research is largely missing in our institutions of higher education, which are the major centres for enriching the manpower at all levels. Keeping this in view, VIT has been making sincere attempts to inculcate research culture from undergraduate levels.



Obviously, the development of research culture is dependent entirely on research literacy which would mean that people should be systematically taught and honed to address the societal issues effectively. There is a need for new guidelines to be framed and financial aid to support and keep the research initiatives intact. This would also warrant the need to rear teams comprising of expert faculty members who mentor research activities and invoke research interests from undergraduate levels. All these factors have been taken into account by VIT to accomplish its goal in inculcating research culture at grassroots level.

With a view to attaining this objective, VIT, in addition to the research activities pursued at Master's and Ph.D. levels, has incorporated research components at undergraduate levels (immediately after the plustwo levels). Not only that the undergraduate students are expected to devote at least one full semester (preferably the last semester) exclusively for project, involving original research to be pursued either in VIT or in another institute *par excellence*, they are also encouraged to carry out research with a faculty member on a particular research topic. This association has led to publishing the results in journals of repute. Hundreds of UG students have successfully completed such studies in collaboration with the faculty members; the number is phenomenally increasing year by year; **664 publications** were evolved out of these collaborations in 2018. Further, the UG students are encouraged to choose courses (URE001 and URE002) on "Undergraduate Research Experience", so that they are exposed to various disciplines of research and innovation; this could inspire them to opt research as their career. VIT has also a unique

system of conducting research seminar (exclusively a student-centered programme) in every semester (referred to as **SET Conference**; **Science**, **Engineering & Technology Conference**). This student-driven Conference, the largest (and probably the only one) of its kind in India, wherein research papers are being presented under the supervision of faculty members, acts as a major impetus for the students to get exposed to the intricacies and the beauty of research. In the previous year 2018-19, a total of 3609 papers were presented on floor exclusively by the students – a sizeable increase from 2014-15 (when **2657 papers** were presented). Another unique feature of the system is the inclusion of a module in the curriculum referred to as the "8th module" which ensures each and every course has an industrial component. Mandatorily, the "8th module" will be offered by an expert from the industry, which in turn would expose the students to industry research. Further, to translate the research ideas of UG students, a "Creation Laboratory" has been formulated wherein the students are entitled to have full freedom to design experiments and have trial runs. Every year, VIT earmarks a substantial amount for funding this endeavor – each such project is offered to the tune of Rs 1 lakh for product development; this is in addition to Rs.5 Cr budgetary allocation as Seed Money. The Creation Laboratory has fostered creative and innovative thinking among the students (especially at UG levels) and helped them to come out successfully holding top (first or second) positions in whichever national/international competitions (such as HACKATHON, CODEATHON, BUILDATHON, MAKETHON, CanSat-NASA, AIAA, ASEE etc.) they have participated within India and abroad (including the developed countries). VIT's strategy of inculcation of research at UG levels is reflected at masters and Ph.D. levels as well; the PG and the Ph.D. students have been instrumental in bringing laurels to the institution by winning national and international awards.

Promotion of research at UG levels has also been reflected in the qualitative and quantitative increase in publications. VIT has been rated as one among the top institutions (that include IITs and IISc) in terms of its publications in Scopus indexed journals; significantly, it is worth mentioning at this juncture that over 15% of the publications from VIT during 2018-19 have been evolved out of UG research. The outcome of students' involvement in research is also reflected in filing of patents; 166 patents have been published in the year 2019. The funded projects of the faculty members (currently VIT has 72 on-going funded projects worth Rs. 20 crores) also cater to the research interests of the UG students leading to publications in journals of international repute. It would be worth mentioning that VIT students have been successful in getting PG admissions in top-ranking institutes such as IISc, IITs, Oxford University, Purdue University, Carnegie Melon, University of Waterloo etc. And these achievements have been the contributory factors for the institute to be granted IoE status of late, No.1 position among the private institutions in ARIIA-2019 award and top positions in NIRF ranking.

As a result of VIT's strategy, the UG students are currently involved in frontier areas of research such as Artificial Intelligence, Data Science, Cyber-Physical System, Autonomous Mobility, Wearable Technology, Smart Structures, Sustainable Cyber Safety and Security, New Materials Technology, Developmental Economics, etc. These practices have helped the institution to groom the students in general and UG students in particular, as excellent investigators, and more importantly, mature and responsible world-class citizens.

File Description	Document
Any other relevant information	<u>View Document</u>
Appropriate web in the Institutional website	View Document

# 5. CONCLUSION

# **Additional Information:**

In the last 5 years the impact of VIT's contributions has been noteworthy. A few are highlighted here.

- With an aim to provide learning opportunities for girls and boys from rural background, every year, sixty-two students who top the higher secondary examinations of the State Government in their respective districts, are offered free education, food and accommodation in VIT under the STARS scheme. Many such graduates are now successfully employed in MNCs in Europe and America.
- Visit of 5 Nobel Laureates, online interaction with Nobel Laureate and conduct of virtual conferences involving researchers of international repute have given a thrust to research and international collaboration at VIT.
- Students' engagement in co-curricular and extra-curricular activities, Hack-a-thons, and conferences is enhanced by linking it with academics.
- VIT Research Fellowships for Ph.D. scholars, financial incentives for research papers published, VIT
  contribution to open access journal fee, 100% contribution to Patenting Fee, etc., have created a positive
  impact on research output of VIT.
- VITOL [VIT On-Line] has been started with a state- of- the art Studio and is ready to offer On-Line courses as a step towards promoting blended learning.
- The major awards received by the Institution in the recent past include ARIIA Award for the Best Innovative University in Private Sector in India (2019), Clean & Smart Campus Awards (2019) and Swachh Campus Rankings of Higher Educational Institutions (2019).
- Government of India had recognized VIT as one of the Institutions of Eminence (IoE) in Sept 2019.

The Current Ranking Credentials of VIT are:

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# VIT - India and World Rankings – 2020

World Ranking	2020
QS World University Rank	801 – 1000
QS Asia University Rank	228
QS India University Rank	28
QS World University Subject Rank	
1. Electrical and Electronic Engineering (EEE)	301 – 350
2. Chemical Engineering	301 – 350
3. Computer Science & Information Systems	401 – 450
4. Mechanical and Manufacturing Engineering	401 – 450
5. Chemistry	451 – 500
THE World University Rank	801 – 1000
THE Asia University Rank	201 – 250
THE India University Rank	28
THE World University Subject Rank	
1. Computer Science	301 – 400
2. Electrical and Electronic Engineering	501 – 600
3. Mechanical and Manufacturing Engineering	501 – 600
4. Chemical Engineering	501 – 600
5. Civil Engineering	501 – 600
6. Physical Sciences	601 – 800
India Ranking 2020 (NIRF)	
1. Overall Rank	28
2. University Rank	16
3. Engineering Rank	15
4. Management Rank	55

# **Concluding Remarks:**

Vellore Institute of Technology is a forward looking, fast growing institution with a flair for doing the best and leaving a strong foot print in all activities. Establishing a quality culture in Teaching–Learning, Research and Extension activities has been the focus of our endeavours. The academics is designed to suit the learning style of GEN Z students and research is carried out in Trans-disciplinary areas. Undergraduate Research is given a strong emphasis and has resulted in creation of Intellectual Property emerging from young and bright students of VIT.

Faculty members visited various industries across India which resulted in over 1700 industry partners collaborating with the institution. Introducing several innovations in academics such as Project Based Learning, and Undergraduate Research Experience had positive impact on student learning. Allowing students to be innovative in their projects and evaluating them based on their learning process and not by the end result alone is a feature well appreciated by Industries.

In addition to creating an ecosystem for developing the cognitive domain of students, VIT also caters to the affective and psychomotor domains by (i) Nurturing 203 Student Clubs and Professional societies, (ii) Organising soft skill training programmes as part of curriculum, (iii) Organising hackathon events in various domains and (iv)Conducting numerous value added programmes. This attracts industries to VIT for on-campus recruitment.

Strong international connectivity is evident from the number of foreign professors visiting VIT and several of our faculty members visiting universities and research labs abroad. Research collaborations, joint publications, student faculty exchange and joint conferences organized with reputed universities abroad add value to Internationalization.

VIT had established the Centre for Sustainable Rural Development and Research Studies (CSRD&RS) for fulfilling its social responsibility by providing better and effective services for the development of its neighbouring community, with the active participation of the students and NGOs.

In order to cope up with Volatile, Uncertain, Complex and Ambiguous (VUCA) world, VIT is preparing to become a 100% Digital University. With this background, VIT is committed to fulfil its role for the development of Higher Education in India.

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# **6.ANNEXURE**

1.Metrics	<b>Level Deviatio</b>	ns					
Metric ID	Sub Questions a	nd Answers	before and a	after DVV V	Verification		
1.1.2	Percentage of P	rogrammes	where syll	abus revisi	on was cari	ried out during the last five years.	
	1.1.2.1. How many Programmes were revised out of total number of Programmes offered						
	during the last five years						
	Answer before DVV Verification: 63						
		ter DVV Ve			41 • 4•4		
		<b>ber of all Pr</b> efore DVV V	_	-	the institu	tion during the last five years.	
		ter DVV Ve					
	Tims wer ar		inication. 7	J			
	Remark : DV of the numbers b		the changes	s as per shar	ed Letter fro	om the Registrar seeking the revision	
1.2.2	D		:	N D	1 C 14 C-	(CDCS) / -L4	
1.2.2		0				ystem (CBCS) / elective course d academic year).	
	system has been	impiement	cu (Data I	or the lates	t complete.	a academic year).	
	1.2.2.1. <b>Num</b>	ber of Prog	rammes in	which CBC	CS / Electiv	e course system implemented.	
		efore DVV V					
	Answer af	ter DVV Ve	rification: 7	9			
	Remark : DV	V has made	the changes	as per incl	uding Ph D	nrograme	
	Kemark . Dv	v nas made	the changes	as per men	uding Fil.D	programs.	
1.3.2	Number of valu	e-added cou	ırses for in	parting tra	ansferable a	and life skills offered during last	
	five years.						
	1221 11			<b>.</b>	33.3	241 - 41 - 1 - 4 C	
		•			re added w	ithin the last five years.	
	Answer before DVV Verification: 373 Answer after DVV Verification: 265						
2.1.2		_	_		_	es (SC, ST, OBC, Divyangjan, etc.)	
	as per applicab	le reservatio	on policy du	iring the la	st five year	S	
	(Excluding Supernumerary Seats)						
	2 1 2 1 Num	her of actua	ıl students :	admitted fr	om the res	erved categories vear wise during	
	2.1.2.1. Number of actual students admitted from the reserved categories year wise during last five years						
	_	efore DVV V	erification:			_	
	2010.10	2017-18	2016-17	2015-16	2014-15		
	2018-19	2017 10					
			2012	2001	2025		
	3348	2933	2912	2801	3035		
	3348			2801	3035		

		3335	2862	2833	2707	2897
	Re	mark : DV	V has made	the change	s as per sha	red report o
2	Avera Super	Answer be	tage of full D.Sc./D'Li Der of full t ear wise du fore DVV V 2017-18	time teache t. year-wise ime teache	ers with Phe during the rs with Ph. st five years:  2015-16	a.D./D.M/M e last five y D. / D.M. /
		Answer be	<b>experience</b> fore DVV V	e <b>of full-tim</b> Verification	te teachers: 13336.8	
	Re experi	Answer be: Answer aft  Answer aft  mark: DVV  ience less th	experience fore DVV Verer	e of full-time verification: 1 ed the inputer.	te teachers: 13336.8	ceived awar
4.4	Re experi	Answer be Answer aft Answer aft mark: DV ience less th age percent nal, Intern	experience fore DVV Ver DVV Ver V has verifican one yea tage of full ational lever	e of full-time verification: 1 ed the input r.  time teached from Godine teached ime teached	te teachers : 13336.8 : 13136 : as per conservers who receiving zed bodies	ceived awar Govt. recog g awards fr
	Re experi	Answer be Answer aft Answer aft mark: DV ience less th age percent nal, Intern	experience fore DVV Ver DVV Ver V has verifican one yea tage of full ational lever	e of full-time verification:  ed the inputer.  time teacher  ime teacher  ovt. recogni	te teachers : 13336.8 : 13136 : as per conservers who receiving zed bodies	ceived awar Govt. recog g awards fr
	Re experi	Answer be Answer aft Answer aft Mark: DVV ience less thage percent nal, Internal, Inte	experience fore DVV Ver DVV Ve	e of full-time Verification: It is the input of the input	te teachers : 13336.8 : 13136 : as per conservers who receiving zed bodies	ceived awar Govt. recog g awards fr year wise d
	Re experi	Answer be Answer aft Answer aft Mark: DVV ience less the Age percent nal, Internal, In	experience fore DVV Verer	e of full-time Verification: 1 ed the input or.  time teacher of the teacher of t	e teachers : 13336.8 : 13136 : as per consers who receiving zed bodies : 2015-16 45	ceived awar Govt. recog g awards fr year wise o
	Re experi	Answer be Answer aft Answer aft Mark: DVV ience less the Age percent nal, Internal, In	experience fore DVV Verer	e of full-time Verification: 1 ed the input r.  time teacher of the teacher of th	e teachers : 13336.8 : 13136 : as per consers who receiving zed bodies : 2015-16 45	ceived awar Govt. recog g awards fr year wise o

various agencies for advanced studies / research during the last five years.

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
31	40	19	17	19

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
12	28	5	3	4

Remark: DVV has not considered Participation, Selection Certificate. DVV also excluded the activities such as youth exchange/ training/discussion on collaboration/visiting professors/invited talk etc.

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
123	73	79	88	63

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
89	65	60	70	56

Remark: DVV has excluded appointment as project assistant in a sponsored research project.

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
120.79	224.03	0.942	224.35	60.30

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
80.19	120.32	0.942	198.30	52.56

Remark: DVV has made the changes as per provided award letters by HEI. mail copy has not considered.

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

Answer before DVV Verification: 443 Answer after DVV Verification: 318

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

Answer before DVV Verification: 1628 Answer after DVV Verification: 1628

Remark: DVV has excluded research projects by referring the data from 3.2.1 & 3.2.2.

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
61	78	68	26	11

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
39	35	24	17	11

- 3.4.3 Number of Patents published / awarded during the last five years.
  - $3.4.3.1. \ \textbf{Total number of Patents published} \ / \ \textbf{awarded year-wise during the last five years.}$

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
166	55	30	26	21

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
57	25	15	14	11

Remark: DVV has made the changes as per pro-rata basis of provided e-copies of patent.

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

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

Answer before DVV Verification: 1155 Answer after DVV Verification: 1151

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

Answer before DVV Verification: 860 Answer after DVV Verification: 514

Remark: DVV has excluded duplicate names. DVV has given the input as per shared Ph.D holders certificate of asked teachers by HEI. For 3.4.4.2 DVV has given the input as per link-http://naac.vit.ac.in/naac/c3/clarification/344/RG.pdf shared by HEI.

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
2921	2615	2716	2778	2176

## Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
2917	2615	2710	2771	2176

Remark: DVV has verified the ISSN number from SCOPUS publication and UGC Care website.

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
2412	2132	2073	1449	969

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
2355	2098	1986	1560	800

Remark: DVV has not considered ISSN numbers on this metric.

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
96.29	62.42	61.11	38.98	33.60

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
96.28	62.42	61.11	38.39	33.58

Remark : DVV has made the changes as per highlighted amount generated from consultancy and corporate training shared by HEI.

- Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years
  - 3.6.3.1. Number of extension and outreach programs conducted by the institution those through NSS/NCC, Government and Government recognised bodies during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
148	121	75	61	40

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
130	119	75	55	32

Remark: DVV has excluded activities are conducted only with YRC club of institutions and not in collaboration with other institutions.

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
26	28	20	17	22

## Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
23	20	15	17	18

Remark: DVV has excluded MoU's are for dual degree programs, admission to VIT.

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
21789	13986	16205	15566	9504

## Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
21721.96	13987	15160.58	15420.66	9264.57

Remark: DVV has made the changes as per Vellore and Chennai schedules of fixed assets of excluding Trolley, Library Books, Television, Refrigerator, LCD projector, Microwave oven, Railway bridges, Freezer, Bus car two wheeler duly certified by CA.

# 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)

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
645.26	663.28	646.16	549.17	565.75

#### Answer After DVV Verification:

2018-19   2017-18   2016-17   2015-16   2014-1
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	618	603.6	606.13	530.14	556.12
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Remark: DVV has made the changes as per expenditure of subscription, books and periodicals in Income and expenditure duly signed by CA.

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

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

Answer before DVV Verification: 7851 Answer after DVV Verification: 7598

Remark: DVV has made the changes as per library entries of teachers and students in physical and online access shared by HEI.

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

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

Answer before DVV Verification: A. All of the above Answer After DVV Verification: A. All of the above

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

# 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)

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
13959	16390	10984	7903	6002

## Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
13329	16390	10984	7903	6002

Remark: DVV has made the changes as per expense of maintenance of infrastructure (physical facilities and academic support facilities) duly signed by CA.

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
27361	24889	15395	14130	12473

## Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
27361	24889	15395	14130	12473

Remark: As per supporting documents provided by HEI

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
859	423	299	208	91

## Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
686	333	241	156	75

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

Answer before DVV Verification:

2018-19 2017-18 2016-17	2015-16	2014-15
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## 5.2.2 Average percentage of placement of outgoing students during the last five years

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
4381	3349	3550	4289	3779

Answer	A fter	DMM	Verifice	ation
AllSwei	Aner	$D \vee V$	vennca	auon

		2018-19	2017-18	2016-17	2015-16	2014-15
		4379	3343	3548	4288	3774
.1	should 5.3 cultur event	ties at inter I be counter 1.1. Numbral activitie Should be	r-university ed as one) o per of awar es at inter-u counted as	s won by st y / state / na during the l rds/medals iniversity / one) year -	ational / int last five yea won by stu state / nati wise durir	ernational ars. dents for o onal / inter
		2018-19	2017-18	2016-17	2015-16	2014-15
		5	20	5	12	7
		Answer Af	ter DVV V	erification:		
		2018-19	2017-18	2016-17	2015-16	2014-15
		5	15	2	7	1
	- wise	during the	e last five y	ts and cultue ears. Verification:		/ competiti
	- wise	during the	e last five y	ears.		/ <b>competiti</b> 2014-15
	- wise	during the Answer be	e last five y fore DVV V	ears. Verification:		-
	- wise	during the Answer bes 2018-19 180	e last five y fore DVV V 2017-18 112	ears. /erification:	2015-16	2014-15
	- wise	during the Answer bes 2018-19 180	e last five y fore DVV V 2017-18 112	ears. /erification: 2016-17 97	2015-16	2014-15
	- wise	during the Answer bes 2018-19 180 Answer Af	e last five y fore DVV V 2017-18 112	ears. /erification: 2016-17 97 erification:	2015-16	2014-15

2018-19	2017-18	2016-17	2015-16	2014-15
1521	1377	1427	1213	1083

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
876	760	680	820	570

Remark: DVV has made the changes as per provided financial support letter by HEI. Payment Request letter and Claimed statement has not considered.

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
30	24	31	26	23

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
22	21	25	22	18

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
1125	945	867	872	689

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
950	780	760	670	580

Remark: DVV has not considered program duration less than 5 working days. DVV has counted

one teacher once for a year. DVV has not considered conference.

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
6.09	305	40	60	0

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
50	100	40	150	0

Remark: DVV has made the changes as per grants received for development provided by HEI.

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
95.99	34.75	83.06	53.25	44.49

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
9.15	3	4.90	2.50	22

Remark: DVV has made the changes as per provided letter of Grants received from non-government bodies by HEI. Provided mail copy has not considered. Provided grant details in own college head letter has not considered.

## 2.Extended Profile Deviations

ID	Extended (	Questions			
1.1	Number o	f programs	offered year	-wise for la	st five years
	A a	foro DVV V	aui£i aa4i au		
	Answer be	fore DVV V	erification:		
	2018-19	2017-18	2016-17	2015-16	2014-15

63	59	59	54	53
Answer At	ter DVV Ver	rification:		
2018-19	2017-18	2016-17	2015-16	2014-15
79	75	75	70	69
	f courses in	_	ns year-wise	during last
2018-19	2017-18	2016-17	2015-16	2014-15
1652	1840	1791	1508	1501
Answer Af	ter DVV Ve	rification:		
2018-19	2017-18	2016-17	2015-16	2014-15
	2071	2035	1658	1515
Answer be	f seats earm ears	erification:	0	
Number o last five ye	f seats earm ears	erification:	0	
Number o	f seats earm		2015-16 2801	2014-15 3035
Number of last five years Answer be 2018-19 3348	f seats earmears  fore DVV Vo. 2017-18 2933	2016-17 2912	2015-16	2014-15
Number of last five years Answer be 2018-19 3348	f seats earmears  fore DVV Vo  2017-18  2933	erification: 2016-17 2912 rification:	2015-16 2801	2014-15
Answer be 2018-19 3348 Answer Af 2018-19	f seats earmears  fore DVV Vo. 2017-18 2933  fter DVV Ve. 2017-18	erification: 2016-17 2912 rification: 2016-17	2015-16 2801 2015-16	2014-15 3035 2014-15
Number of last five years Answer be 2018-19 3348	f seats earmears  fore DVV Vo  2017-18  2933	erification: 2016-17 2912 rification:	2015-16 2801	2014-15
Answer be 2018-19 3348  Answer Af 2018-19 3335	f seats earmears  fore DVV Vo. 2017-18 2933  fter DVV Ve. 2017-18	erification: 2016-17 2912  rification: 2016-17 2833	2015-16 2801 2015-16 2707	2014-15 3035 2014-15 2897
Number of last five years Answer be 2018-19 3348  Answer Af 2018-19 3335  Total Exp	f seats earmears  fore DVV Ver 2017-18 2933  fter DVV Ver 2017-18 2862	erification: 2016-17 2912 rification: 2016-17 2833	2015-16 2801 2015-16 2707	2014-15 3035 2014-15 2897
Number of last five years Answer be 2018-19 3348  Answer Af 2018-19 3335  Total Exp	f seats earmears  fore DVV Verence 2017-18 2933  Ster DVV Verence 2017-18 2862  enditure exceptions and the exception of the	erification: 2016-17 2912 rification: 2016-17 2833	2015-16 2801 2015-16 2707	2014-15 3035 2014-15 2897
Answer be 2018-19 3348  Answer Af 2018-19 3335  Total Exp	f seats earmears  fore DVV Verence 2017-18 2933  ter DVV Verence 2017-18 2862  enditure exceptore DVV Verence 2017-18	erification: 2016-17 2912 rification: 2016-17 2833 eluding salar	2015-16 2801 2015-16 2707 ry year-wise	2014-15 3035 2014-15 2897
Answer be 2018-19 3348  Answer Af 2018-19 3335  Total Exp  Answer be 2018-19 55907	f seats earmeters  fore DVV Verence 2017-18 2933  fter DVV Verence 2017-18 2862  enditure exception of the distribution of the	erification:  2016-17  2912  rification:  2016-17  2833  eluding salar  erification:  2016-17  47553	2015-16 2801 2015-16 2707 ry year-wise	2014-15 3035 2014-15 2897 e during las
Answer be 2018-19 3348  Answer Af 2018-19 3335  Total Exp  Answer be 2018-19 55907	f seats earmears  fore DVV Verence 2017-18 2933  Ster DVV Verence 2017-18 2862  enditure exception of the desired are provided as a second control of the desired are provided	erification:  2016-17  2912  rification:  2016-17  2833  eluding salar  erification:  2016-17  47553	2015-16 2801 2015-16 2707 ry year-wise	2014-15 3035 2014-15 2897 e during las