



# **SELF STUDY REPORT**

**FOR**

**1<sup>st</sup> CYCLE OF ACCREDITATION**

**JYOTHY INSTITUTE OF TECHNOLOGY**

**THATAGUNI, OFF KANAKAPURA ROAD**

**560082**

**[www.jyothyit.ac.in](http://www.jyothyit.ac.in)**

**Submitted To**

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

**(Draft)**

# 1. EXECUTIVE SUMMARY

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## 1.1 INTRODUCTION

Jyothy Institute of Technology (JIT) is a Private Unaided Self-Financing Institute located in Bangalore that was started under the leadership of Karnataka Rajyothsava Awardee, Dharmika Pravara, Late Dr. B.N.V Subrahmanya, a visionary par excellence. JIT is affiliated to Visvesvaraya Technological University (VTU), Belgaum and is approved by All India Council for Technical Education (AICTE).

JIT though initially started as a typical teaching institute in 2011 undertook a white space finding activity in the year 2016 and decided to **prioritize Research, Innovation and Incubation addressing society & environment amalgamating both science & technology to be the cornerstones** of its journey forward alongside teaching and since then embarked on a journey to transform itself. The same is aptly reflected in the NIRF and ARIIA 2020 rankings. JIT is ranked in the band 250 - 300 in NIRF and 26 - 50 in ARIIA by MHRD and the research centre CIIRC also has the distinction of being recognized as a Scientific & Industrial Research Org (SIRO Centre) by DSIR, GoI alongside its incubation centre AIC-JITF being amongst the top 5 best performing Atal incubators.

The institution started its foray by offering **Undergraduate Programmes (2011)** in the disciplines of Civil Engineering Mechanical Engineering, Computer Science Engineering, Information Science Engineering, Electronics & Communication Engineering with four of the programmes being accredited by **NBA in 2017** and has recently (2020) launched a new course on AI & Machine Learning. Besides this the Institution also initiated **Masters Programmes (2019)** in Mechanical Engg, CSE and Food Technology as well as **Doctoral Programmes (2018) in the domains of CSE/ISE, Mech Engg, E&C, Civil Engg, Nanotechnology, Biotechnology, Physics, Chemistry, Mathematics, Polymer Science & Technology, Material Science & Engg** and is a recognized R&D Centre of Visvesvaraya Technological University (VTU) with an overall scholar strength of approximately 1000 Plus on campus. The institution has a dedicated team of teaching and research staff with **43** doctorates and **53** masters who are alumni of premier institutes such as IISc, IIT, NIT, Central, State and Foreign Universities.

### Vision

In line with its VISION- *To be an Institute of Excellence in Engineering education, Innovation and Research and work towards evolving great leaders for the country's future and meeting global needs*, of transforming itself as a research & innovation driven institute, the institution has established an exclusive Multidisciplinary R&D Centre CIIRC in Sep 2016 with research and innovation labs spread over approximately 25000 Sq.ft at a cost of Rs.25 Crore duly supported by Sri Sharadha Peetham Sringeri in 18 areas of S&T. The areas being Medical Devices & Sensors, Ancient Indian S&T, Autonomous Systems, Biocomposites & Biopolymers, Cell & Molecular Biology, Computational Engg, Energy, Environment, Food Technology, Nanobiotechnology, Nanoscience & Engg, Plant & Microbial Technology, Remote Sensing & VLSI, Surfaces & Interfaces, Thermal Engg, Tribology, Water, Ink alongside a dedicated Sophisticated Instrument Facility housing instruments such as SEM, XRD, GC, FT-IR, DSC and a host of other equipment.

The institution also has about 37 projects funded by DST, DRDO, DBT, MOES, DOS, VGST, KCTU, CEFIPRA, GITA, UGC-DAE, VTU which includes bilateral projects with France, Sweden, Belarus, ASEAN, Egypt and the European Union worth about 12 crore rupees. In terms of its Publication record the faculty have numerous publications (~ 250 in last three years) in peer reviewed National and International Journals with good impact factor, indexed in Scopus/Thomson Reuters/Web of Science and a no of book chapters and books published by major publishing houses such as Springer, Elsevier, Wiley and others. Many of the research faculty have good metrics in terms of h index and citations and have developed over **25** products of relevance from societal and environmental perspectives and the same is being commercialized through the Atal incubation centre located on campus.

In terms of collaborations the institute has 4 R&D, 29 Industrial, 6 International and 24 academic MOU's. The institution also offers technical and consultancy services to various organizations and individuals alike. The faculties of the institute have been conferred with awards such as Commonwealth Fellowship, BRICS Young Scientist, DBT Women, DBT Ramalingaswamy, CSIR, Raman Charpak (Indo-French) Fellowship, WOSA, WOSB, Young scientist from DST, BIRAC-Shrishti, and others.

### Mission

The institution in line with its mission-*“The Institution aims at providing a vibrant, intellectually and emotionally rich teaching learning environment with the State of the Art Infrastructure and recognizing and nurturing the potential of each individual to evolve into ones own self and contribute to the welfare of all”* has created state of the art facilities for a student to evolve onto own self. Faculty & students by using the facilities have many accomplishments to take note of. Of all the accomplishments, the prominent being the distinction of hosting ISRO satellite receiver for data collection pertaining to IRNSS satellite, Leading the 4th Indian Scientific expedition to the North Pole (Arctic) for mapping arctic glaciers and understanding glacier melting in Sep 2019 and thus by becoming the **first Indians** to fly drones in the arctic, Winning Bangalore Nano 2018 for the most innovative products display and Nano Sparx in 2020, Being the Pace setting car at the Asia Pacific Coffee-500 rally running our car on biodiesel made from waste cooking oil in 2017 and being selected to go to the South Pole (Antarctica) in Nov 2020 as part of an International expedition and much more.

To harness the research output and inculcate entrepreneurial culture the institute with the support from NITI Aayog established Atal Incubaton Centre (**AIC – JIT** foundation) which became operational in April 2019 with an outlay of Rs 15 crores. **The focus areas of AIC-JITF are Food Technology, Sensors & Devices (including IOT) and Materials.** The incubation centre currently has 18 start-ups that have been incubated till date, with 8 of them getting BIG, VILLGROW, INFOSYS, K-ELEVATE, DST, Angel & VC grants to the extent of **5.0** crores.

The institution has been participating regularly in National and International events. In fact one of the teams won the first place in the software category for the design & development of a rain water harvesting system using Python in SIH 2020 and fifth place in SAE Aero design USA 2020.

The institution is also a member of Unnat Bharath Abhyaan (UBA).

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

### Institutional Strength

1. Excellent Infrastructure, Geographical Location and Lush Green Campus
2. Transparent governance in Academic, Administration and Financial matters.
3. The Institution is ranked by NIRF 2020, ARIIA 2020 and accredited by NBA 2018 (4 Disciplines)
4. An exclusive multidisciplinary R&D centre- Rs.11 Crore Live projects, Atal Incubator with Rs.10 crore funding
5. 6th Pay Commission
6. Professional one-to-one mentoring of students from reputed industry professionals
7. Faculties with 40+ Doctorates.
8. Promotion through Faculty appraisal system
9. Good Faculty Retention and cadre ratio
10. Continuous Technology up-gradation of Knowledge and Skill Development of both faculties and students
11. Company specific training for enhanced employability
12. Foreign Language classes
13. Computational facility and connectivity
14. Yoga for students
15. Overseas education help desk
16. Virtual & Video Learning
17. Policy for Research promotion
18. Faculty Development Programmes.
19. Proper Budgeting and Utilization of Fund
20. Department Advisory board
21. Paid Internships
22. Participation in Swacch Bharat Abhiyaan, Nodal Centre for Unnat Bharat Abhiyaan, Fit India, Ek Bharat Shresht Bharat
23. Students participate in Overseas Technical Competitions
24. Well defined Service Rules.
25. Collaboration with foreign universities, Industries, Academic Institutions
26. Incubation of companies on campus-21 companies on campus
27. Entrepreneurship programmes for students
28. Registered Alumni Association
29. Student incubation support
30. WIFI facility
31. Industry relevant technical training
32. Industrial visits
33. Participation in Smart India Hackathon
34. Implementation of NPTEL programmes
35. Centre of Excellence
36. Gold ring for best outgoing student of the year
37. Induction Programme for first year students- as per AICTE guidelines
38. Online feedback about college & staff

39. Funded Projects from premier agencies such as DST, DBT, DOS, DIC, DSIR, UGC-DAE and Overseas projects in collaboration with foreign universities
40. Cutting edge multidisciplinary Science & technology research
41. Significant amount of Publications in Scopus / TR indexed International Journals with high impact factor
42. Good Citation, h-Index and Impact factor
43. Research Centres in more than 18 Domains
44. An Exclusive 1531Sq. mts of R & D Space with sophisticated instruments
45. Annual College Magazine- JITIMES
46. Internal Quality Assurance Cell –Academic Audit
47. Roof top solar power plant of 350KVA, biodiesel plant , biogas and STP for waste water treatment
48. Over 100 manyears of R&D experiance
49. Regular host for university sport
50. Admission with moderate fees structure and fee consession
51. Explore- R& D Inisiative
52. Entreprenourship program

### **Institutional Weakness**

1. Lack of scope for Cultural Diversity
2. Lack of Residential facility for staff
3. Industry relevant curriculum design
4. In-Adequate levels of participation from foreign students for full time courses
5. Admission quality of PG students is relatively low.

### **Measures for Overcoming the Weaknesses:**

- **Lack of scope for Cultural Diversity:**

Admissions to our institution are from southern states only. Few have been admitted from Kashmir through AICTE quota. Admissions of students from other northern states are to be increased through promotion of our institution with digital marketing.

- **Lack of Residential facility for staff**

Though there is no demand for residential quarters from teaching staff. Few residential flats have been built for hostel staff and technical staff.

- **Industry Relevant Curriculum Design**

The institution is bound to follow the curriculum of the state university to which our institution is affiliated to,

i.e., VTU. However, the gaps identified between industry and academia is being filled through additional technical training engaging experts from industry. A request for the inclusion of industry relevant curriculum will be sent to the Registrar of University

### **Institutional Opportunity**

1. Exploring the opportunity to become an Autonomous/ Private University
2. Establishing a dedicated foreign language department
3. NBA mentoring to other Indian Institution
4. Collaboration with foreign Universities
5. Explore the possibilities of commercialization of patents
6. Deputing faculties on sabbatical to leading institution/industries
7. Potential for enhanced support from Alumni
8. To increase the number of PhD's and reach 70% in due course of time
9. Engaging more number of students in R& D, innovation, product development and Incubation

### **Institutional Challenge**

1. To make JIT the most preferred destination among prospective students and their parents through promotion and publicity
2. To attract more number of international placement
3. Attracting core engineering company placements catering to all domains
4. To attract top rank students
5. To improve consultancy
6. Competition by tier 1 colleges in the city
7. Competition with engineering colleges in the neighborhood

The institution has devised plans to make optimum use of its strengths utilizing the opportunities overcoming the weaknesses and identifying ways to face the challenges

## **1.3 CRITERIA WISE SUMMARY**

### **Curricular Aspects**

The VTU, university to which our institution is affiliated to, has been revising the curriculum as per AICTE directives to cater to the needs of the industry. The university has revised the syllabus in 2010, 2015 & 2018. The grading system is also a part of the evaluation process for global needs. The university adopted the Choice Based Credit System (CBCS) model to add flexibility. To make students familiarize with the campus and galvanize their skillsets, AICTE has adopted the 3-week induction programme from 2018 onwards. This would help students to acquire qualities/ attributes through Physical Activity, Proficiency modules, Universal Human Values, Lecture by eminent faculty/people, visits to local areas, familiarization to innovations, literary activities and visual/ creative arts. Eminent Academicians and personnel from the Industry play a significant role in the value addition to the curriculum by bringing in their experience and quality. Institute integrates

issues relevant to Gender, Environment and Sustainability, Human Values & Professional Ethics in to the Curriculum by offering the courses such as Constitution of India and Professional Ethics, Management and Entrepreneurship, etc. Value added courses such as Aptitude Skill Training, Soft Skills Training, etc, are also offered. As per the requirements of AICTE, Internship has been made mandatory for Students. The Employers and the Alumni also contribute to value addition through training and placement. Feedback from all stake holders, i.e., Industry, Alumni, Parents and students is considered while framing the PSOs, PEOs, Vision and Mission

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

Student Enrolment is through a transparent admission policy as per regulation of GoK. Admission through the 'Common Entrance Test' (CET) conducted by the GoK also ensures that allotment of Engineering seats is done as per the Reservation Policy.

The Institute releases academic calendar well in advance. Student centric programs such as Experiential learning & Participative Learning have been integrated into the curriculum. Best Practices have been adopted to ensure high quality Teaching-Learning Process. Faculties utilize various ICT tools to deliver the content effectively.

Qualified, experienced and competent faculties with passion for their profession contribute to the academic and professional growth of the students. The average percentage of faculty with Ph. D during the last five years is 30.588%. Mentoring & counseling system provides necessary emotional support to the students and instills confidence in them to face the challenges.

Being an affiliated Institution, the evaluation processes, i.e., Continuous Internal Evaluation (CIE) & Semester End Examination (SEE), are done as per guidelines of the University.

Focus is on Professional development of students with all infrastructures in place. Facilities such as Lifts, Ramps, Wheel Chair, etc., are available to ensure easy mobility for differently abled students also.

Moving towards the outcome-based approach; each programme has a set of PEOs, POs and PSOs. Student assessment is done to assess the learning outcomes. Students' Satisfaction Survey done by the Department helps the institution to identify and assess the strengths and weaknesses in the system. Feedback on facilities is obtained from students for corrective action.

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

In line with its **motto of transforming** it-self into an research & innovation driven institution, an exclusive Multidisciplinary R&D Centre "CIIRC" has been established in in the year **2016** with research and innovation labs in **18** domains of Science & Technology, spread over approximately 1531 Sq.mts at a cost of ~ 25 Crores duly supported by Sri Sharadha Peetham, Sringeri.

The institution also has about **43** projects funded by **DST, DRDO, DBT, MOES, DOS, DIC** and many more which includes bilateral projects with **France, Sweden, Belarus, ASEAN, Egypt and the European Union** worth about **11 crores**. In terms of its Publication record the faculty have numerous publications (~ **250** in last three years) in peer reviewed National and International Journals with good impact factor, indexed in

**Scopus/Thomson Reuters/Web of Science** and number of **book chapters** and **books** published by major publishing houses such as **Springer, Elsevier, Wiley** and others. Many of the research faculty have good metrics in terms of **h index** and **citations** and have developed over **25** products of relevance from **societal and environmental perspectives** and the same is been commercialized through the **Atal Incubation Centre** located on campus.

In terms of collaborations the institute has **4 R&D, 29 Industrial, 6 International and 24 academic MOU's**. The institution also offers technical and consultancy services to various organizations and individuals alike. Students, Staff, Innovators & Incubates (in house and from outside) have the benefit of utilizing these facilities for carrying out their research, projects and internships.

### **Infrastructure and Learning Resources**

The Institute, spread over an area of about Four acres, is a green campus, has a very conducive atmosphere and adequate facilities for effective teaching and learning.

The college has adequate infrastructure viz. State-of the art Laboratories, Workshops, Class Rooms, Student amenities, cafeteria, roads, power supply, water Harvesting & supply systems etc. The central library of the institute has collection of 11923 Volumes and 1968 Titles on various subjects and more than 1733 reference books, e-journals such as **Elsevier, Springer**, etc., NPTEL Video access service and e-books etc.

Internet bandwidth on campus is 150 Mbps. The college has adequate facilities for Co-Curricular, Extra-Curricular activities, Sports and Games. The Central Auditorium and seminar hall caters to the need of occasional gathering and conducting seminars. For physical fitness, an outdoor Gym is provided on campus. Hostel facility is provided for Girls and Boys separately. Separate common rooms are provided for girls and boys. A medical room with first aid facility is available for medical emergency. The college has signed an MOU with a hospital few kilometers away from college for medical emergency. The entire college campus is under CCTV surveillance. The institution has an online e-JIT portal for uploading student performance and messaging services. This also has a payment gateway for payment of fee by students. The website provides access to official information. Firefighting facility, reprographic, scanning, printing facilities and extensive parking space are some of the other facilities provided. Adequate budgetary provisions have ensured good infrastructure and academic support facility.

### **Student Support and Progression**

The institute conducts orientation sessions to familiarize students with the rules, regulations, norms, syllabus and scheme of evaluation of the University. An Induction Programme is conducted to familiarize the students with the college environment and feel homely. Institution funds foreign language fee, patents, incubation and supports students through paid internships. Students are provided with scholarships for their academic performances & meritorious students are felicitated every year.



Guest Lectures, Workshops, technical training, entrepreneurship programmes, Skill Development Programmes are regularly conducted. The training and placement cell enhance the Technical and communication competencies of students. Numerous NSS activities and blood donation camp are held every year. Community development classes are held for school children from nearby village/s.

Annual cultural festival for both students and staff is being hosted by the institution to promote literary and extempore skills of students. Annual sports meet is held for both staff and students to encourage students to excel in sports. Professional coaching is arranged to talented students in select games/sports.

As a part of decentralization, the institution has various committees to oversee activities of students and disciplinary issues. The institution has internal quality assurance cell (IQAC) operating since three years to establish processes and for regular audit.

The institution has a registered Alumni association. The alumni meet is held in the second week of August every year. The Alumni association plays an active role in providing guidance and support to the students in training, Academics and career planning. Parent-Teacher meetings are periodically conducted to hear the grievances.

### **Governance, Leadership and Management**

The vision and Mission of the Institution reflect the aspiration of the Management for Development of Human Resources for the nation. The Vision of the institution is to create leaders and the same is accomplished through the mission. The institution has set up incubation centers to create next generation industrialists. The Institution has a vision to foster Academic and Professional excellence of the staff/students. The Institution practices Decentralization and Participatory Management. The Institution envisages producing competent Human Resources by proactive participation of all stake holders. Intertwined freedom and responsibility are intrinsically woven into the organizational culture.

Functional autonomy is given to all departments and the R& D centre. Separate bank accounts are opened for each Department and the department activities are funded through their department account. The account is operated jointly by the head and one of the management committee members. Periodical meetings are held by the Principal to frame the modus operandi and review the progress. Transparency is ascertained in all aspects and information is made available on the website. Institution aims at attaining stake holder satisfaction. Regular meetings are held with parents, students, Industry personnel, eminent academicians, alumni and the suggestions are considered in framing the Action Plan. Decision making is done in consultation with the Faculty. The staff is governed by a set of well-defined Service Rules.

The Internal Quality Assurance Cell (IQAC) monitors the activities and assures Quality in all aspects. Academic and Administrative Audits are held once in a semester.

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

With regard to institutional values, the institution has practiced high ethics and morale in its functioning. Headed by elderly woman as chairperson who is also taking care of a Sanskrit Veda Patashala, the service motto is inbuilt into our culture. The Institution is promoting and supporting Gender equity and Sensitivity. Sensitization programmes and workshop about gender equity are organized regularly for students and staffs. Safety and security, Common room facilities and Counseling are provided to female students and faculty.

To add value to Green Initiatives, a Bio fuel production unit is established on campus with a production capacity of 100 liters per day. A roof top Solar PV Power Plant of 350 KVA capacity is set up this year. This would cater to 100% of the power requirements of the institute.

The Institution has become a member of the Indian Green Buildings Council. Measures such as Rain Water Harvesting, e-waste management, Sewage treatment plant facilitate Green Environment on the campus. A cow herd is also fed on campus to meet dairy requirements of hostel. A small gas facility is developed by the institution for use of gas in hostel kitchen. Engineers Day, Yoga Day, etc. and all important national days are regularly celebrated to show respect to our nation and great national leaders who sacrificed their life for our nation.

The Institution maintains complete transparency in financial, academic and administration functions.

The best practices of the Institute include:

- Exposure to overseas competitions and education
- Entrepreneurship, start-up and Incubation support

## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	JYOTHY INSTITUTE OF TECHNOLOGY
Address	Thataguni, off Kanakapura Road
City	Bangalore
State	Karnataka
Pin	560082
Website	<a href="http://www.jyothyit.ac.in">www.jyothyit.ac.in</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	K GOPALA KRISHNA	080-28435052	7406597660	080-8028435052	principal@jyothyit.ac.in
Professor	K CHANDR ASEKHAR	080-41527900	9480428309	080-8028427070	hod.ece@jyothyit.ac.in

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular Day

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
Date of establishment of the college	13-07-2011

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

State	University name	Document
Karnataka	Visvesvaraya Technological University	<a href="#">View Document</a>

**Details of UGC recognition**

Under Section	Date	View Document
2f of UGC	26-07-2019	<a href="#">View Document</a>
12B of UGC		

**Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)**

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	<a href="#">View Document</a>	15-06-2020	12	

**Details of autonomy**

Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	Yes <a href="#">autonomydoc_1610012753.pdf</a>
If yes, has the College applied for availing the autonomous status?	No

**Recognitions**

Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	Yes
If yes, name of the agency	NBA NIRF ARIIA
Date of recognition	26-07-2018

<b>Location and Area of Campus</b>				
<b>Campus Type</b>	<b>Address</b>	<b>Location*</b>	<b>Campus Area in Acres</b>	<b>Built up Area in sq.mts.</b>
Main campus area	Thataguni, off Kanakapura Road	Urban	4	14299

## 2.2 ACADEMIC INFORMATION

<b>Details of Programmes Offered by the College (Give Data for Current Academic year)</b>						
<b>Programme Level</b>	<b>Name of Programme/Course</b>	<b>Duration in Months</b>	<b>Entry Qualification</b>	<b>Medium of Instruction</b>	<b>Sanctioned Strength</b>	<b>No.of Students Admitted</b>
UG	BE,Civil Engineering	48	PUC	English	60	21
UG	BE,Computer Science And Engineering	48	PUC	English	120	111
UG	BE,Electronics And Communication Engineering	48	PUC	English	60	55
UG	BE,Information Science And Engineering	48	PUC	English	60	56
UG	BE,Mechanical Engineering	48	PUC	English	60	17
UG	BE,Artificial Intelligence And Machine Learning	48	PUC	English	60	0
PG	Mtech,Computer Science And Engineering	24	B.E	English	18	2

	Pg					
PG	Mtech,Food Technology	24	MSC BE BS	English	24	4
PG	Mtech,Product Design And Manufacturing	24	B.E	English	18	2
Doctoral (Ph.D)	PhD or DPhil,Bio Technology	72	M.TECH	English	5	0
Doctoral (Ph.D)	PhD or DPhil,Chemistry	72	MSC	English	5	0
Doctoral (Ph.D)	PhD or DPhil,Civil Engineering Research	72	M.TECH	English	5	3
Doctoral (Ph.D)	PhD or DPhil,Computer Science And Information Science Engineering Research	72	M.TECH	English	5	2
Doctoral (Ph.D)	PhD or DPhil,Electronics And Communication Engineering Research	72	M.TECH	English	5	0
Doctoral (Ph.D)	PhD or DPhil,Food Technology Research	72	M.TECH	English	5	0
Doctoral (Ph.D)	PhD or DPhil,Mathematics	72	MSC	English	5	1
Doctoral (Ph.D)	PhD or DPhil,Material Science And Engineering	72	M.TECH	English	5	0
Doctoral	PhD or DPhil	72	M.TECH	English	5	2

(Ph.D)	I,Mechanical Engineering Research					
Doctoral (Ph.D)	PhD or DPhil,Nano Technology	72	M.TECH	English	5	0
Doctoral (Ph.D)	PhD or DPhil,Physics	72	MSC	English	5	0
Doctoral (Ph.D)	PhD or DPhil,Polymer Science	72	M.TECH	English	5	0

### Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	17				18				61			
Recruited	14	3	0	17	14	4	0	18	41	20	0	61
Yet to Recruit	0				0				0			

<b>Non-Teaching Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				61
Recruited	31	30	0	61
Yet to Recruit				0

<b>Technical Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				24
Recruited	19	5	0	24
Yet to Recruit				0

### Qualification Details of the Teaching Staff



<b>Permanent Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	14	3	0	12	4	0	5	5	0	43
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	2	0	0	36	15	0	53

<b>Temporary Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

<b>Part Time Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	2	0	0	0	0	0	0	0	0	2
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	7	5	0	12

<b>Details of Visting/Guest Faculties</b>				
<b>Number of Visiting/Guest Faculty engaged with the college?</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
		9	5	0

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

<b>Programme</b>		<b>From the State Where College is Located</b>	<b>From Other States of India</b>	<b>NRI Students</b>	<b>Foreign Students</b>	<b>Total</b>
Doctoral (Ph.D)	Male	3	1	0	0	4
	Female	3	1	0	0	4
	Others	0	0	0	0	0
UG	Male	156	9	0	0	165
	Female	94	1	0	0	95
	Others	0	0	0	0	0
PG	Male	5	2	0	0	7
	Female	1	0	0	0	1
	Others	0	0	0	0	0

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

Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	7	2	2	11
	Female	2	1	1	7
	Others	0	0	0	0
ST	Male	0	1	4	5
	Female	0	0	1	1
	Others	0	0	0	0
OBC	Male	69	65	42	65
	Female	31	31	24	45
	Others	0	0	0	0
General	Male	81	74	93	84
	Female	53	58	58	61
	Others	0	0	0	0
Others	Male	15	13	6	6
	Female	10	7	9	9
	Others	0	0	0	0
Total		268	252	240	294

## Extended Profile

### 1 Program

#### 1.1

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

2019-20	2018-19	2017-18	2016-17	2015-16
253	259	264	258	258

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

#### 1.2

Number of programs offered year-wise for last five years

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

### 2 Students

#### 2.1

Number of students year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
995	997	963	1045	846

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

#### 2.2

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

2019-20	2018-19	2017-18	2016-17	2015-16
180	150	150	150	150

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

### 2.3

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

2019-20	2018-19	2017-18	2016-17	2015-16
259	234	224	216	150

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

## 3 Teachers

### 3.1

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

2019-20	2018-19	2017-18	2016-17	2015-16
96	93	96	95	69

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

### 3.2

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

2019-20	2018-19	2017-18	2016-17	2015-16
83	87	84	81	81

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

## 4 Institution

### 4.1

#### Total number of classrooms and seminar halls

**Response: 29**

**4.2**

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

2019-20	2018-19	2017-18	2016-17	2015-16
562.12	599.54	374.97	265.19	248.36

**4.3**

**Number of Computers**

**Response: 306**

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## 4. Quality Indicator Framework(QIF)

### Criterion 1 - Curricular Aspects

#### 1.1 Curricular Planning and Implementation

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

##### **Response:**

The Institution follows the Curriculum and Syllabi prescribed by the Visvesvaraya Technological University (VTU). All rules, regulations and guidelines associated with the institution are governed by the norms of the University. The institution meticulously develops action plan for effective implementation of the curriculum and highest priority is given for academic excellence. Teachers are encouraged to impart the knowledge through innovating teaching methods, assignments, discussions, workshops, seminars, internship, industrial visits, Projects, e-learning apart from regular /traditional chalk and talk methods.

The detailed process is as given below:

The academic calendar of the institution reflects various curricular activities planned during a semester which is based on the University calendar.

All the departments prepare department calendar containing both curricular and co-curricular activities which would be organized during the semester.

The Principal prescribes timelines for preparing lesson plan, question bank and assignments before the commencement of the semester. All the faculties prepare pre-requisites such as lesson plan, question bank and assignments as per the standard templates, well in advance for their courses and these are duly checked by the respective Heads of the department.

The Principal also prescribes standard guidelines for the conduction of lab experiments envisaged to provide best learning experiences.

##### **Process of implementation:**

Academic calendar will be followed effectively and also the entire faculties ensures coverage of syllabus as per the lesson plans and course file will be reviewed by the Heads on continuous basis to ensure effective

syllabus coverage.

After every Continuous Internal Evaluation (CIE) the Heads of the department along with faculties assess the result and inform the progress of the students to parents. Remedial classes will be conducted for slow learners which help them to improve their performance in University exams; the others are given challenging questions, assignments and are encouraged to take up NPTEL courses.

Institution encourages faculty and students to organize guest lectures, workshops, industry visits to impart industry academic information among students and faculties on regular basis.

### Course Implementation

- 1.The Principal & Heads meet before the commencement of the classes and finalize the college academic calendar
- 2.The Principal conducts orientation programme for faculties at the beginning of the academic year
- 3.Induction program for First year students are conducted before the commencement of the regular classes
- 4.Heads conducts meeting with faculties to review and evaluate the progress of syllabus coverage before each CIE
- 5.Identification of advanced / slow learners in CIE/previous exam
- 6.Intensive coaching for slow learners and remedial classes for failed students and also exposure to advanced courses such as NPTEL, COURSERA, publication of articles in conferences and journals for Advanced learners.
- 7.Every teaching faculty is entrusted with the task of mentoring around 20 students on academic and personal issues there by strengthening relation between the students and the faculties leading to a better learning environment.

The curriculum planning is structured based on the outcome base education as prescribed by the AICTE and VTU. It also encompasses the PEO's, PSO's, CO's, Course syllabus, Lesson plan, CIE, Attendance.

File Description	Document
Link for Additional information	<a href="#">View Document</a>

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

##### Response:

The Institution is affiliated to Visvesvaraya Technological University (VTU) and follows all rules, regulations and guidelines to carry out the Continuous Internal Evaluation Process.

Currently the 2015, 2017 and 2018 schemes of CBCS Course system are being followed.



Before the Commencement of every semester, an academic calendar is prepared which reflect various curricular activities plan including Continuous Internal Evaluation during a semester which is based on the University calendar.

In the process of Continuous Internal Evaluation (CIE), two sets of question papers are prepared for every course. Each question paper comprises of ten questions, out of which five questions are to be answered.

The Heads of The Department along with DAEC Coordinator scrutinizes the question papers; one question paper among the two is selected for Internal Assessment (IA).

The Students can see their evaluated bluebook and discuss the same with concerned faculty and result are declared within seven days and displayed and communicated to parent.

Three CIE are conducted and average of three CIE is considered in final marks plus the assignment (30+10) for 17 & 18 schemes & (15+5) for 15 schemes. The institution has a good proctoring system where each Procter is allocated a group of 15 to 20 students. The proctor monitors their performance through CIE and informs their parents about their marks and attendance and calls them for a parent's teacher meeting.

Laboratory sessions are conducted as 3 hours per week. All the experiments details are written in observation book and executed. After execution, it is written in record book. At the end of the semester, lab test is conducted, the breakup for Internal lab marks for

2015 Regulations is

10 Marks	Record
5 Marks	Observation
5 Marks	Test
<b>20 Marks</b>	<b>Total</b>

For 2017 & 2018 Regulation

15 Marks	Record

15 Marks	Observation
10 Marks	Test
<b>40 Marks</b>	<b>Total</b>

Project & Mini Project assessment breakup varies from course to course.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

**1.1.3 Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the last five years**

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

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

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Details of participation of teachers in various bodies/activities provided as a response to the metric	<a href="#">View Document</a>

## 1.2 Academic Flexibility

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

**Response:** 100

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

**Response:** 20

File Description	Document
Minutes of relevant Academic Council/ BOS meetings	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

Response: 9

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

2019-20	2018-19	2017-18	2016-17	2015-16
4	3	1	1	0

File Description	Document
List of Add on /Certificate programs	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

Response: 16.73

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

2019-20	2018-19	2017-18	2016-17	2015-16
202	287	39	319	0

File Description	Document
Details of the students enrolled in Subjects related to certificate/Add-on programs	<a href="#">View Document</a>

## 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 goals of the institution are described in its Vision statement which covers distinctive characteristics that include quality engineering education, ethical value, Innovation & research. The curriculum has ample scope to address the issue which directly or indirectly contributes to the environment, human value and professional ethics etc.

An environmental study develops an awareness, knowledge and appreciation of the natural's environment. It develops an understanding of various types of ecosystems that exists in nature. It makes the learner aware of biodiversity. This course focuses on different types of pollutants present in environment and creates awareness on global environment problem. Banners prohibiting the use of polythene bags are put up at various locations in and around the campus.

Environment awareness campaigns organized in local schools, Swachh Bharat Abhiyan is being actively carried on.

#### **Constitution of India:**

The constitution of India states the fundamental rights and the duties of each citizen and lays down a basic structure of the principles of Governance of the country. It creates the organs of the government and defines their functions and powers and states their interrelationship and the relationship between these organs and the people.

#### **Professional ethics :**

Professional ethics course is designed to inculcate the sense of social responsibility and to develop a firm ethical base. It makes the students realize the significance of human values and ethics in professional environment. The study of professional ethics inspires values like honesty , integrity , reliability in the students of engineering so that they utilize their analytical and professional ability in taking up responsibility towards the society and consequently , towards the nation. English for communication addresses effective communication issues.

**Gender Sensitization:**

Seminars on gender equities are organized to create awareness about gender issues and promote gender equity. Student welfare committee & Grievance Redressal Cell will handle the sensitive issues regarding the women rights and security. Women empowerment cell address the issues related to women and make the institution campus a safe place for the women/girl students. To boost the morale of the women/girl students, the achievements of great women are enlightened during the women's day.

**Human rights:**

Legal cell/ anti- ragging cell, Anti-sexual harassment cell, Grievance Redressal cell are active in the college campus. Talks on consumer rights, women's rights are organized periodically.

File Description	Document
Upload the list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum.	<a href="#">View Document</a>

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

**Response:** 4.11

**1.3.2.1 Number of courses that include experiential learning through project work/field work/internship year-wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
15	20	6	6	6

File Description	Document
MoU's with relevant organizations for these courses, if any Average percentage of courses that include experiential learning through project work/field work/internship	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**1.3.3 Percentage of students undertaking project work/field work/ internships (Data for the latest**

**completed academic year**

**Response:** 48.74

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

Response: 485

File Description	Document
List of programmes and number of students undertaking project work/field work/ /internships	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 1.4 Feedback System

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

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

File Description	Document
Any additional information (Upload)	<a href="#">View Document</a>
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	<a href="#">View Document</a>

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

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

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

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

## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

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

**Response:** 82.63

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

2019-20	2018-19	2017-18	2016-17	2015-16
268	252	240	294	262

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

2019-20	2018-19	2017-18	2016-17	2015-16
420	300	300	300	300

#### File Description

#### Document

Institutional data in prescribed format

[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 ( exclusive of supernumerary seats)

**Response:** 66.78

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

2019-20	2018-19	2017-18	2016-17	2015-16
109	100	74	134	102

#### File Description

#### Document

Average percentage of seats filled against seats reserved

[View Document](#)

Any additional information

[View Document](#)

## 2.2 Catering to Student Diversity

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

#### Response:

The Institution assesses the learning level of the student's right from the time he/she is admitted to the college through a structured orientation programme.

#### Orientation program

Every year the institution organises student orientation program for the newly enrolled first year students. The annual information booklet is provided to all the newly admitted students at the beginning of the academic session. The booklet provides details about the faculty co-ordinators and their responsibilities as well as information about anti-ragging norms, Code of conduct, events for the fourth coming year, staff and their functions etc.

The students after taking admission to their domain of engineering undergo a bridge course in Mathematics, Basic electronics, Basic Electrical Engineering and Programming in computer applications to improve their performance in related subjects. After each mid-term examination during a semester, the slow learners are identified based on their performance in the tests. Remedial classes are arranged for all slow learners in the respective subjects. Remedial classes are conducted by the subject experts beyond the college time and records are maintained. Their performance is further monitored through personal counselling. Students having backlogs (failed in some subjects in the previous semesters) are also identified and necessary support is provided to them by the teachers.

During the programme slow learners are identified through CIE and remedial measures are taken well in time.

To support the accelerated learners in their academic pursuit, depending upon their program of study, programs like campus connect, special training programs on C programming, campus specific training, online certification courses offered by NPTEL are offered to ignite the minds of the advanced learners. Better exposure is provided to them through Guest lectures and seminars on encouraging areas of Technology. Confidence and capacity building are the prime focus of the Institute.



File Description	Document
Past link for additional Information	<a href="#">View Document</a>

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

**Response:** 10:1

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

## 2.3 Teaching- Learning Process

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

**Response:**

Student centered approaches are quite different fundamentally from more conventional approaches to learning and teaching. Moreover, these differences are not confined to what goes on in the classroom but include issues of epistemology. Faculties are more focused to a student centric learning process, in place of conventional teaching-learning process of transferring the knowledge to students; they boost the confidence of students by formulating personal learning objectives and motivating them to become independent and responsible.

Faculties have adopted teaching methods that aim to foster active learning through student presentations, quizzes and continuous assessment. Student assessment is formative and summative in nature. Interactive lectures make learning mode more active and effective as faculties encourage group work and creative thinking rather than just students to replicate what they have been instructed for. This approach also includes an effective qualitative and periodic student-teacher feedback system. These methods include:

- **Active learning:** To promote active learning, faculties involve students in different activities. Students solve problems, answer questions, formulate questions of their own, discuss, explain, debate, or actively participate in brainstorming sessions.
- **Cooperative learning:** To promote cooperative learning, faculties share the open-ended problems with students which require the critical thinking to solve them. In this, students work in teams on problems and projects under conditions that assure both positive interdependence and individual accountability.
- **Project based learning:** Students are encouraged to work on application of theory learned through projects/POC building in the form of design. It helps to bridge the gap between theoretical concepts and its practical applications.
- **Problem Solving Methods:** Problem solving methods are also a part of the curriculum. They are as follows
  - Project Work/ Mini Project is a learning experience which aims to provide students with the

opportunity to synthesise knowledge from various areas of learning critically and creatively apply it to real life situations.

- Internship provides opportunities to students to get an insight on how to implement a new technology.
- **Problem based Team Learning:** Students participate in different project exhibition, competitions/ project competitions like Smart India Hackathon (SIH) where participating students are assigned different tasks and activities in which students engage in industry based complex and challenging problems. They jointly work towards their solutions by using inter-disciplinary knowledge.

The Institution ensures the overall development of the students through participatory learning experience

File Description	Document
Link for additional information	<a href="#">View Document</a>

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

#### Response:

**Institute** uses the information and communications technology to support, enhance, and optimize the delivery of information. ICTs have an important role to play in changing and modernizing educational systems and ways of learning. ICT supports the distance learning and provides various methods of educational services to promote student centered learning. Faculties are using various information communication technology tools in class room to make sessions interactive. Class rooms are equipped with projector to demonstrate, video lectures like NPTEL series and PPTs to students. In the time of COVID-19 pandemic, structure of the TLP including assessment methodologies got affected. The use of ICT has extended the scope of offering courses at a distance. The off-campus delivery is an option for students who are unable to attend the classes on campus. Today, students are able to make this choice through technology. Faculties are employing flipped classroom concept through ICT based education mode. Teaching staff share the course materials through remote devices and the same is accessed by students. Teachers and students are making use of handheld computers, tablet computers, audio players and projector devices to adopt the new way of education trend. Students have taken up 2-6 weeks industry internship program with the help of ICT. Skill enhancement of teachers is essential to student learning outcomes. Faculties are also participating in different FDPs and webinar by using different tools of ICT. In the institution, ICT has become an indispensable component of the professional development of teachers and students. Webinar based teaching learning process is also in place.

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

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

academic year )

**Response:** 17:1

2.3.3.1 Number of mentors

Response: 57

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

## 2.4 Teacher Profile and Quality

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

**Response:** 107.86

File Description	Document
Year wise full time teachers and sanctioned posts for 5years(Data Template)	<a href="#">View Document</a>
List of the faculty members authenticated by the Head of HEI	<a href="#">View Document</a>

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

**Response:** 35.03

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

2019-20	2018-19	2017-18	2016-17	2015-16
44	39	37	34	9

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

<b>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)</b>	
<b>Response:</b> 4.8	
<b>2.4.3.1 Total experience of full-time teachers</b>	
Response: 461	
File Description	Document
List of Teachers including their PAN, designation, dept and experience details(Data Template)	<a href="#">View Document</a>

## 2.5 Evaluation Process and Reforms

<p><b>2.5.1 Mechanism of internal assessment is transparent and robust in terms of frequency and mode</b></p> <p><b>Response:</b></p> <p>Jyothy Institute of Technology is affiliated to Visvesvaraya Technological University and is approved by AICTE. The curriculum and the evaluation schemes are set by Visvesvaraya Technological University. The institution follows guidelines of University/AICTE. The curriculum set by the University is classified as: theory courses, practical courses, projects and seminars. These courses are evaluated by different tools to measure the programme outcomes that linearly contribute to graduate attributes. Institute follows the guidelines given by IQAC, JIT for the conduction of internal assessment.</p> <p><b>Procedure for Internal Assessment</b></p> <ol style="list-style-type: none"> <li>1.Preparation of time table for Internal Assessment tests as per calendar of events.</li> <li>2.Internal assessment test portions are decided on the basis of monthly course completion reports and students are informed about this a week in advance.</li> <li>3.Each faculty teaching the course prepare a set of two question papers per course. Each question paper covers the portions completed by the respective faculty, as per given format by IQAC. Among two question papers, department DAEC selects one question paper for internal assessment test.</li> <li>4.All question papers are mapped with the appropriate course outcomes, programme outcomes, and programme specific outcomes.</li> <li>5.All faculties prepare a scheme for evaluation, mentioning the expected key points clearly.</li> </ol>
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6. For the internal assessment of the lab, the allotment of experiment to students is based on pick and choose method with provision for change of experiment with 10 % of total marks reduced as penalty.
7. For the internal assessment of the lab, marks are allotted according to the student based on the performance in conduction of experiment, write-up and viva. The internal evaluation is in adherence to the scheme of evaluation given by the University.

Update parents/local guardians with scheme and reports of their wards.

File Description	Document
Link for additional information	<a href="#">View Document</a>

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

#### Response:

Institute follows IQAC guidelines in compliance with VTU Schemes, for the internal assessment of the theory and laboratory to ensure preparedness of the students. Complete transparency is maintained in all forms of internal evaluations. Three internal assessment tests in each semester are planned in academic calendar and executed as per schedule given in calendar of events. After evaluation, answer sheets are distributed and discussed with students for their benefit and to maintain transparency in the evaluation. Examination results are displayed on notice boards. Overall performance, attendance, feedback about the student is communicated to parents by student proctors in parent-teacher meetings. It is observed that internal evaluation improves overall performance of students. Regular study habits are inculcated in the students. Following process is established for Internal Assessment (IA) test conduction:

1. IA coordinator prepares the schedule/time table for theory and lab IA tests and is published on the website.
2. According to monthly course completion reports, faculties set the IA test question papers.
3. Each faculty designs two question papers per subject as per given format by IQAC covering the portions completed in their respective course, out of which, DAEC will select one question paper for the test. Paper must contain course outcomes mapped to each question and relevant PO-PSO mapped to the questions.
4. IA coordinator allots students to the test room depending on available room capacity. IA coordinator also prepares the list of faculty members for invigilation duty.

File Description	Document
Link for additional information	<a href="#">View Document</a>

## 2.6 Student Performance and Learning Outcomes

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

#### Response:

Each department, in line with the institute vision, mission statements, arrives at its own vision, mission statements. These vision and mission statements are correlated to the graduate attributes as 12 Programme Outcomes. Mainly, PO statements address knowledge, skills and attributes of the graduate of a formal program offered by department. Every department in the institute also forms a set of Programme Educational Objectives that clearly show the goal for the programmes running in the department. POs are attained through course outcomes of all the courses. Jyothy Institute of Technology is affiliated to Visvesvaraya Technological University and institute follows the curriculum provided by University. Institute faculty members redefine COs given by University in consultation with the department heads, subject experts and other stakeholders. The department articulates the course outcomes and programme outcomes to the stakeholder's through different methods. Faculty members discuss course outcomes and programme outcomes with students at the beginning of the semester along with syllabus. The course outcomes and their mapping to programme outcomes of all modules for each subject syllabus are added in the course lesson plan and question papers. Soft copies of curriculum and learning outcomes of programmes and courses are uploaded on the institution website for stakeholder's reference. The importance of these learning outcomes has been communicated to the faculty members periodically through general staff meeting. The students are also communicated about the programme outcomes and programme educational objectives through proctor meetings.

File Description	Document
Upload COs for all Programmes (exemplars from Glossary)	<a href="#">View Document</a>

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

#### Response:

The computation of Course Outcome Attainment Level (COAL) is based on various parameters such as continuous internal evaluation (CIE), University Examination and course exit survey (CES). All the courses in the programme are having uniform target level for all course outcomes. COAL is calculated for programme courses following the different university schemes. The department conducts Internal Assessments (as per the university scheme) and the Question Papers contain Course Outcome (CO) mapping to Programme Outcome (PO), clearly indicated against each question. Based on the attempted questions and obtained scores, the departments compute individual student's attainment of different course outcomes of a course. In order to compute the course outcome attainment based on university exams, since the COAL by IA contributes to 50% by average and the university exam contributes to 50% by average; the average attainments are computed using the class average for each course. At the end of the semester the students are given an Indirect COAL form where they fill their levels of attainments of the course outcomes. This survey is dependent on the perspective of the students. Attainment of Programme Outcomes levels (POAL) is calculated by two methods, direct assessment and indirect assessment. All the programme outcomes will have the uniform target level. This computation is based on COAL averages and



CO-PO mapping (finally 60% of the average mapping is considered). Course outcome level can be increased by 5% on the achievement of target by two consecutive batches. In case if the set target levels are not achieved by two consecutive batches then same is reduced by 5%. Indirect assessment includes various tools for its evaluation like alumni feedback and student exit survey.

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

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

**Response:** 94.75

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

2019-20	2018-19	2017-18	2016-17	2015-16
236	218	216	198	139

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

2019-20	2018-19	2017-18	2016-17	2015-16
247	231	224	209	150

File Description	Document
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	<a href="#">View Document</a>
Upload any additional information	<a href="#">View Document</a>

## 2.7 Student Satisfaction Survey

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

**Response:**

<b>File Description</b>	<b>Document</b>
Upload database of all currently enrolled students (Data Template)	<a href="#">View Document</a>

NAAC



## Criterion 3 - Research, Innovations and Extension

### 3.1 Resource Mobilization for Research

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

**Response:** 1218.51

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

2019-20	2018-19	2017-18	2016-17	2015-16
285.28	210.63	174.30	548.30	0

**File Description**

**Document**

List of endowments / projects with details of grants

[View Document](#)

e-copies of the grant award letters for sponsored research projects / endowments

[View Document](#)

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

**Response:** 32.29

**3.1.2.1 Number of teachers recognized as research guides**

**Response:** 31

**File Description**

**Document**

Institutional data in prescribed format

[View Document](#)

Any additional information

[View Document](#)

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

**Response:** 84.62

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

2019-20	2018-19	2017-18	2016-17	2015-16
6	5	5	4	2

### 3.1.3.2 Number of departments offering academic programmes

2019-20	2018-19	2017-18	2016-17	2015-16
6	5	5	5	5

File Description	Document
Supporting document from Funding Agency	<a href="#">View Document</a>
List of research projects and funding details	<a href="#">View Document</a>

## 3.2 Innovation Ecosystem

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

#### Response:

JIT has evolved itself as an institution harbingering an apt ambience and ecosystem for nurturing innovations, initiating initiatives for facilitating entrepreneurship, knowledge transfer by bringing together for the first time on the same platform the diverse components of science, engineering, business orientation and skill development by the creation of an exclusive multi-disciplinary R&D centre CIIRC and an incubation centre AIC-JITF. The research centre CIIRC has identified 18 areas to support innovation and has put in place the requisite facilities and manpower that can catalyse innovations. The faculty and students are fully supported in utilizing the same and have the freedom to initiate start-ups and parallelly promote knowledge transfer and business interests through its incubation centre AIC-JITF. The institution also supports external participants as well and conducts regular workshops, seminars and training sessions to sensitize the participants. A policy for the same has been drafted and available on the website.

Many faculties have been supported to undertake innovation by not only providing the necessary facilities and infrastructure but also an Research fellow/s to assist in the same. The fellows also have the freedom to enroll for their doctoral programme if they so desire provided, they pass the university entrance exam and go through the process.

Typical examples being Agringenium Innovation Pvt. Ltd started by a research faculty has the distinction of having developed innovative products from waste and the same has also been granted about 1 crore INR by AIM to commercialize the same.

A second example being Bauplechain Pvt Ltd in the software segment by another faculty who has also secured a BIG grant from DBT of about 50 lakhs INR.

A third example in the domain of food called Nutriarc. There are many other such cases and in all of them the institution has also supported the salary component of not only the faculty but also of the research fellow/s besides the requisite equipment. The institution now has started to support in a small way limited production facility on campus for such innovators & entrepreneurs besides facilitating IPR protection if required.

In terms of metrics more than 25 innovative products have been developed and few have been commercialized. Also, 18 start-ups, both external and internal, have been promoted and start-up grants to the tune of about 5 crores INR raised. Additionally, the institution through its incubation centre offers training and skill development programmes in ideation, business planning, IPR, etc., and also supports school children through the ATL's.

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

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

**Response:** 61

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

2019-20	2018-19	2017-18	2016-17	2015-16
43	9	2	3	4

File Description	Document
Report of the event	<a href="#">View Document</a>
List of workshops/seminars during last 5 years	<a href="#">View Document</a>

## 3.3 Research Publications and Awards

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

**Response:** 1.28

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

Response: 46

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

Response: 36

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

Response: 3.1

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

2019-20	2018-19	2017-18	2016-17	2015-16
22	82	51	82	41

File Description	Document
List of research papers by title, author, department, name and year of publication	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

Response: 0.18

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

2019-20	2018-19	2017-18	2016-17	2015-16
5	5	1	4	1

File Description	Document
List books and chapters edited volumes/ books published	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.4 Extension Activities

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

**Response:**

Orientation programs are conducted for the first year students, they are sensitized and motivated to enroll for the National Service Scheme, Women Cell and Students Forums/Clubs etc. Participation of students in programs organized by various cells and bodies ensures their involvement in extension and outreach programs.

In accordance with the vision and mission of the organization, emphasis is laid on inculcating the spirit of service and social responsibility among the students. Every effort is made to sensitize the students on issues of social concern. The institution strives for the holistic development of its students fostering team spirit and enabling them to acquire the quality of service beyond self. Students of Jyothy Institute of Technology readily extend their service to the needy. The feeling of universal brotherhood prevails in them and acts as a driving force to attend to various community development activities. The college has well established NSS and Swachh Bharat Abhiyaan units with adequate human resources.

#### **SERVICE ACTIVITIES**

The NSS unit of the college renders regular service as per as calendar of the VTU NSS cell. The activities include a wide range of programs viz . National Integration campaigns, Clean and Green, Village adoption, Environmental awareness, Blood grouping, blood donation camping will be held annually in association with Red Cross Society and required units of blood were collected during the activity, visit to orphanage, awareness on digital literacy, plantation programs, sanitation, immunization, Flood relief activities, supporting people in case of unforeseen situations like natural calamities. The NSS volunteers actively involve themselves in fund mobilization activities that would have been immense help to the needy.

Village adoption programs is implemented to work for the improvement of living conditions of people,

development of roads, proper sanitation facilities, provision of drinking water and plantation activities.

Awareness meets are held on issues such as Eradication of Ragging and Eve Teasing, Gender equality, Sensitizing youth to various social issues. A program organized by the unit inculcates the spirit of oneness. The volunteers have an opportunity to render relentless service to the people and promote holistic development of the youth. They emerge as an individual's ready to serve the society.

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

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

**Response:**

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

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

**Response:** 45

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

2019-20	2018-19	2017-18	2016-17	2015-16
9	14	6	7	9

File Description	Document
Reports of the event organized	<a href="#">View Document</a>
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.4.4 Average percentage of students participating in extension activities at 3.4.3. above during last five years****Response:** 52.85**3.4.4.1 Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachh Bharat, AIDs awareness, Gender issue etc. year-wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
637	742	358	421	409

File Description	Document
Report of the event	<a href="#">View Document</a>
Average percentage of students participating in extension activities with Govt or NGO etc	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.5 Collaboration****3.5.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year****Response:** 390**3.5.1.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship year-wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
191	199	0	0	0

File Description	Document
e-copies of related Document	<a href="#">View Document</a>
Details of Collaborative activities with institutions/industries for research, Faculty exchange, Student exchange/ internship	<a href="#">View Document</a>

**3.5.2 Number of functional MoUs with institutions, other universities, industries, corporate houses**

etc. during the last five years

**Response:** 110

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

2019-20	2018-19	2017-18	2016-17	2015-16
52	24	18	15	1

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



## Criterion 4 - Infrastructure and Learning Resources

### 4.1 Physical Facilities

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

**Response:**

The Institute, which is spread over an area of about Four Acres with an RCC, built up area of 14,299 Sq.mts, has a very conducive atmosphere and adequate facilities for Teaching, learning, Research. Facility creation is strictly followed as per the AICTE norms. Augmentation of Physical Facilities is in-tune with the academic growth.

There are 24 ICT enabled spacious class rooms. Each room is equipped with Black/Green board, Multimedia projector, Internet, Writing Desk, Fans and Tube Lights. Some of the rooms are utilised as tutorial rooms. Furnished Seminar Halls are available for arranging Guest Lectures / Workshops / FDPs and Seminars. A central Auditorium is available to conduct mega events like Conferences and Techno fests.

The Departments have established state-of-art laboratories to cater to the needs of UG, PG Curriculum. The departments have also setup research laboratories with adequate computer facilities. The Institution has recognized Research Centres affiliated to VTU in the Departments of CSE, ECE, ISE, CV, ME, Physics ,Chemistry, Mathematics, Biotechnology, Nano Technology, Food Technology, Polymer Science and Material Science & Engineering . A Computer Aided English Language Communication Skills Lab is functional. Each department has its own computer centre and relevant software packages.

NPTEL College Cell, Professional Society Chapters/bodies viz. IEEE, CSI, ISTE, IETE, SAE and other bodies facilitate the teaching learning process on the emerging trends in technology.

IT- Infrastructure supports the teaching and learning process. There are about 478 computers with varied specifications out of which 306 computers are made available exclusively for students. All Faculty rooms, Administrative office, Departmental Office have internet and computer facilities.

Available Bandwidth of internet connection in the Institution of 150Mbps (Lease Line) is provided through City Online Service Ltd, Bengaluru. 5 Mbps Bandwidth under Airtel is used for QPDS (Question paper delivery System) purpose. Free Wi-Fi facility is provided. The campus wide networking facilities connects all the department, hostel and office with server with higher range are running on the LAN.

The central Library has collection of 11923 Volumes and 1968 Titles on various subjects and more than 1733 reference books, Biographies, Dictionaries, and Encyclopaedias, etc. It subscribes to 37 National Journals and e-journals through VTU Consortium and e-books. Digital Library is equipped with 18

systems. Users have access to e-resources like Springer, Elsevier, Science Direct & other reputed journals. Further the library has college magazines, Question papers, Course Materials, Lecture Notes and Reprographic facility, etc. Departmental Libraries are functional to cater to the specific requirements of the students.

Separate boys and girls hostels are available with 250 & 150 capacity respectively. Separate Boys and Girls common rooms are made available for students to refresh. A separate healthcare first aid unit and sports room are facilitated. A separate placement cell with interview rooms (with internet facility) is available for on-campus placements.

Generator Facility is available for uninterrupted power supply. A rooftop solar power plant with 350 KW Capacity caters to 100 % of the power requirement of the Institute under Green Movement.

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

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

##### **Response:**

The Department of Physical education serves as a vital and integral part of student's life in campus. The mission of the department is to provide the broad spectrum of sports, recreation and leisure activities for students, staffs and faculties. The primary objective is to provide services and programs that stimulate growth, development and retention of students in the contemporary and safe environment that develops fitness and wellness, social interaction and leadership qualities. The college has amenities for both indoor and outdoor games.

Believing in the Adage, "A Sound Mind In A Sound Body", the college provides all facilities required for sports and games. The total area available is 1932 Sq.mts. Facilities are provided for Indoor games such as Table Tennis, Chess, Carrom, etc., Adequate facilities are available for Outdoor games such as Volleyball, Ball Badminton, Kho-Kho, Foot Ball, Basket Ball, Throw Ball, Shuttle Badminton, Tennikoit, Cricket and Kabaddi. Students also take part in Athletics such as High Jump, Long Jump, Shot-put, Discuss Throw, marathon, etc.,. The Institute also hosts VTU Zonal Tournaments and Dr. BNV Subrahmanya Memorial Throw Ball Tournament. The college teams participate in the Inter Collegiate Tournaments. A number of awards /medals for outstanding performance in sports activities at national/ International levels have been accomplished. Financial assistance is provided to students by the Institution for participating in tournaments. Outdoor Gym is provided on campus. Competitions are held on the eve of Annual Sports Meet. Students are made to realize the importance of physical fitness and due encouragement is given them

to avail the available facilities. A qualified Physical Director trains the students. For select sports, training of students by professional coaches is being organised. Yoga centre has been established under Fit India Movement. Classes are conducted for students during the induction programs and during weekends in the hostel.

The College Auditorium has a built-up area of 250 Sq. mts. and is available for staging the performances of students. A cultural committee is constituted to coordinate the activities. The innate talent of the student is identified, nurtured and opportunities/facilities are provided. Students are encouraged to participate in the Inter Collegiate Competitions. Financial assistance is provided for travel, properties and Costumes. Students are encouraged to cultivate their interest in fine arts. On the eve of Fresher's Day, Annual Day and on other significant occasions, students showcase their talent with stage performances.

The annual cultural festival "Pranathi" is organized to improve the organizational abilities of students. Students of various institutions are provided a common platform for proving their mettle. Competitions in a plethora of events viz Elocution, Extempore F/C, Debate, Group-Discussions, Mock Press, Personality Contest, Singing, Dance, Skits, Mime, Mimicry, Mono-Action, Short Film Making, Literary and Fashion Show are held. The event attracts a wide range of participants.

Fresher's Day, Annual Day, Yoga Day, Women's Day, National Youth Day, VTU Youth Fest, Birth and Death Anniversaries of eminent personalities and National Festivals are some of the occasions for the students to give cultural performance.

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

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

**Response:** 100

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

Response: 29

File Description	Document
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	<a href="#">View Document</a>
Upload any additional information	<a href="#">View Document</a>

**4.1.4 Average percentage of expenditure, excluding salary for infrastructure augmentation during last five years(INR in Lakhs)****Response:** 75.64**4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)**

2019-20	2018-19	2017-18	2016-17	2015-16
878.88	257.98	77.21	170.65	233.17

File Description	Document
Upload Details of budget allocation, excluding salary during the last five years (Data Template)	<a href="#">View Document</a>
Upload audited utilization statements	<a href="#">View Document</a>

**4.2 Library as a Learning Resource****4.2.1 Library is automated using Integrated Library Management System (ILMS)****Response:**

There is an established system for maintaining and utilizing facilities in the Library. The Central Library has adopted Open Access System. All the books are arranged and classified as per Dewey Decimal Classification (DDC) 22nd edition which is helpful to the users to locate his/ her desired book. The software used in the library is:

- Name of the Software: Libsoft
- Nature of Automation: Fully
- Version: 9.8
- Year of Automation: 2011

Central Library is fully Automated using LIBSOFT encompassing Acquisition, Cataloguing, Transaction/ Circulation sections. Users can use Online Public Access Catalogue (OPAC) to locate the books. This software supports Barcode System for issue & return of Books. Students can access the e-resources/ NPTEL Videos.

The Library has collection of 11923 Volumes and 1968 Titles on various subjects and more than 1733 reference books, Biographies, Dictionaries, and Encyclopaedias etc. It subscribes to 37 National Journals and e-journals through VTU Consortium and e-books.

Digital Library is equipped with 18 systems, users can access to e-resources like Springer, Elsevier, Science Direct. Etc., .Library has digitized books, CD's, Faculty publications, previous year question paper, Syllabus, Newspaper clipping, NPTEL Videos etc. Students and staff can access the above resources and status by visiting the link <ftp://202.62.91.43/LIBRARY/LIB>. Library has Institution membership of National Digital Library.

Library provides remote access facilities to students, faculties and research scholars to access e- resources subscribed by the institution. Registered members can access the resource 24X7 from any place. Close Circuit Television (CCTV) is provided to monitor activities across library. The laboratory experiment videos are uploaded on YouTube and the list of links is published on college website for the benefit of the students.

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

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

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

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

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Details of subscriptions like e-journals, e-ShodhSindhu, Shodhganga Membership , Remote access to library resources, Web interface etc (Data Template)	<a href="#">View Document</a>

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

**Response:** 5.16

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

2019-20	2018-19	2017-18	2016-17	2015-16
2.39	5.34	9.38	2.80	5.88

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

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

**Response:** 100

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

Response: 1091

File Description	Document
Details of library usage by teachers and students	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 4.3 IT Infrastructure

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

**Response:**

The Institute has the latest IT- Infrastructure to support the teaching and learning process. In total, there are 478 computers on network with varied specification out of which 306 computers are used in the laboratories of various departments. The institution R& D centre has an exclusive computer centre with workstations to process computational data.

The numbers of Printers available are 34. There are 227 License system softwares, 25 License application softwares. The data centre has one firewall. Router, Switches, Access points and network access control. The data centre has qualified technical support staff for effective maintenance. The data centre provides 24X7 internet facility to college / Hostels. The data centre hosts college websites and official e-mail services and messaging.

In the Institution IT facilities are updated from time to time. The campus is Wi-Fi enabled. 150Mbps dedicated leased line through City Online Service Limited, Bengaluru and 15 MBPS bandwidth through City Online Service Limited and 5 MBPS bandwidth through Airtel Broadband for QPDS.

There are about 89 software packages in main computer centre covering all the requirements of the computation. In addition, all the departments have software tools which cater to the needs of their curriculum.

JIT hostel has Wi-Fi connectivity. Digital library facilitates access to Elsevier, Taylor & Francis, Springer, ASCE, ASME, Proquest Management, Proquest Engineering & other Journals/Periodicals.

The IT- Infrastructures includes both hardware and software & is updated frequently as per the requirements from the departments and the programmes. The Class rooms, Seminar hall and Auditorium are equipped with LCD Projectors with all accessories.

The Campus has adequate reprographic facilities such as Laser Printers, Scanners and photocopying Machines

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

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

**Response:** 3:1

File Description	Document
Student – computer ratio	<a href="#">View Document</a>



**4.3.3 Bandwidth of internet connection in the Institution****Response:** A. 250 MBPS

File Description	Document
Upload any additional Information	<a href="#">View Document</a>
Details of available bandwidth of internet connection in the Institution	<a href="#">View Document</a>

**4.4 Maintenance of Campus Infrastructure****4.4.1 Average percentage of expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the last five years(INR in Lakhs)****Response:** 36.45**4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year-wise during the last five years (INR in lakhs)**

2019-20	2018-19	2017-18	2016-17	2015-16
170.05	286.01	143.36	97.52	72.77

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	<a href="#">View Document</a>
Audited statements of accounts	<a href="#">View Document</a>

**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:**

Yes, the Institution has established system and procedures for maintaining and utilizing physical, academic and support facilities. A budget is annually allocated for maintenance of the physical facilities of the institute. The classrooms, laboratories, seminar halls, and library facilities are utilized regularly by the students for the learning process and timetables/logbooks indicate the regular utilization of the respective facilities.



**Housekeeping and maintenance:-**

The Institute has dedicated housekeeping office which maintains class rooms, Laboratories, Seminar hall, Auditorium, Hostel etc. The staff of housekeeping office comprises an Engineer, Manager, Electrician, carpenter, Plumber and Gardeners. The head of housekeeping unit allocates duty to the housekeeping staff and gardeners. The Electrician, Plumber Carpenter & Manager report to the principal's office. The main function of the housekeeping office is maintenance of entire Infrastructure including the installation like diesel generator, fire extinguisher are refilled and kept in serviceable condition throughout the year and security services, In addition to ensuring adequate supply of water and electric power, sufficient backup power supply is maintained in case of power failure from power supply from grid.

**Maintenance of Equipment's and Instruments:-**

The equipment, instruments, infrastructures and other facilities require continuous calibration, maintenance and repair. The departments have qualified and skilled man power to take care of laboratories. Major repairs are outsourced every year through an indent and out-pass; sufficient funds are allocated towards maintenance of equipment/instruments. Stock verification is done at the end of every academic year to ascertain the working condition of the equipment and removal of obsolescence. All unserviceable E-waste such as computers, printers, cables, floppies, CD's, Mouse, Keyboard etc. is disposed through a vender as per the agreement for E-Waste disposal. The computers are monitored and maintained time to time. The data center monitors the campus wide networking facility of the Institution for Ubiquitous network connectivity throughout the campus.

All major R&D instruments/equipment are insured against theft and damage. The buildings are also covered under insurance.

**Parking and related issues**

The Institution provides special vehicle parking facilities at the ground floor 1207.7395(Sq.mts) and first floor 1300.6426(Sq.mts) inside the campus. Provision/space to park around 100 Cars and 300 Two wheelers vehicles are made available.

**Sewage Disposal**

The sewage is led to the sewage treatment plant. The processed and recycled water is used for farming purposes on campus. The recycled water is used to grow veggies and grass for cattle consumption. The dung from cowherd on campus is converted to manure & is used for farming & to produce gaugas which is used for cooking in the hostel kitchen.

## **Solid Waste Management**

The solid waste generated on campus is segregated into three different forms viz., Dry waste, wet waste and others (plastics, metal waste, etc.,). The same will be disposed to the municipal lorry on weekly basis. The institution has donated a disposal van to the municipality.

## **Library protocols**

The Library holding consist of Books, Journals, Library software (LIBSYS), E-Journal, E-Books etc. The books and journals are bounded the stock verification is done as part of a regular maintenance. Center library works from 8:00AM to 6:00 PM. The library has online public Access catalogue (OPAC) for easy search of books for the benefits of students and staff.

## **Library rules and regulations**

- Library card is compulsory for getting access to the library
- Registration should be done to become a library member prior to using the library resources
- Text book, printed materials and issued books are not allowed to be taken inside the library
- Use of cellular phones and audio instruments with or without speakers or headphone is strictly prohibited in the library premises
- One has to enter his/ her name and sign in the register kept at the entrance counter before entering the library
- Library borrower cards are not transferable
- The barrower is responsible on his/her card
- Refreshment of any kind shall not be taken anywhere in the library premises
- Students are allowed to library only on production of their valid identity card
- Books will be issued on presentation of library card along with the bar coded card
- Books will be issued to the students for 15 Days
- Students have remote access to library resources

## **Usage of Seminar Halls and Auditorium**

The seminar hall and conference hall utilization is provided by Department office on the basis of department calendar of events. Institute auditorium and other facilities are provided by the Principal's office on first come first served basis. The departments need to book the auditorium for their use.

## **Security and other issues**

The institution has assigned the security of the institute to an external agency. Emergency exits and firefighting system are provided to counter situations like fire hazard and natural calamities. Select staff

members are trained by fire safety Department of the State Government to be prepared for the worst scenario.

NAAC

## Criterion 5 - Student Support and Progression

### 5.1 Student Support

#### 5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during last five years

Response: 22.36

##### 5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
274	291	237	206	91

#### File Description

#### Document

upload self attested letter with the list of students sanctioned scholarship

[View Document](#)

Upload any additional information Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years (Data Template)

[View Document](#)

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

Response: 0

##### 5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution / non- government agencies year-wise during last five years

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

#### File Description

#### Document

Number of students benefited by scholarships and freeships institution / non- government agencies in last 5 years (Date Template)

[View Document](#)

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

following

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

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

File Description	Document
Details of capability building and skills enhancement initiatives (Data Template)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

**Response:** 4.61

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

2019-20	2018-19	2017-18	2016-17	2015-16
50	39	69	28	36

File Description	Document
Number of students benefitted by guidance for competitive examinations and career counselling during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

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

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

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	<a href="#">View Document</a>
Details of student grievances including sexual harassment and ragging cases	<a href="#">View Document</a>

## 5.2 Student Progression

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

**Response:** 39.59

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

2019-20	2018-19	2017-18	2016-17	2015-16
114	55	60	100	86

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Self attested list of students placed	<a href="#">View Document</a>
Details of student placement during the last five years (Data Template)	<a href="#">View Document</a>

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

**Response:** 25.1

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

Response: 65

File Description	Document
Upload supporting data for student/alumni	<a href="#">View Document</a>
Details of student progression to higher education (Data Template)	<a href="#">View Document</a>

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

**Response:**

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

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

### 5.3 Student Participation and Activities

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

**Response:** 14

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

2019-20	2018-19	2017-18	2016-17	2015-16
8	6	0	0	0

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

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

**Response:**

Students play an active role in contributing for the effective implementation of various initiatives of the college. Students are encouraged to be a part of the administrative and academic bodies. They are trained

to acquire Leadership Skills, Organizational abilities and Team Spirit. Every opportunity is provided to enable them to develop their skills and develop themselves as human resources with true potential with the following objectives.

- To promote environment conducive to educational and Professional Development.
- To represent the views of the Students on matters of general concern to them with respect to Curriculum, College Environment and other things related to the class.
- To develop their Personality and Organizational skills through interactive programs.
- To promote the Team spirit, Social Responsibility and value base.
- To create a sense of Ownership of the College and its activities among students population.

Following is the narrative of functions and events conducted by various Committees:

**Student Grievance:** This committee addresses student grievances and maintains harmony and discipline among the students.

**Anti-Ragging:** This committee ensures zero ragging incidents in the Institute and also spreads awareness among students against any type of ragging activities.

**Cultural:** This committee co-ordinates various cultural activities and events throughout the year. "Pranathi" is an annual intercollegiate cultural gathering which showcases cultural talent of students, organised by the students. Our students also participate in prestigious intercollegiate competitions every year and bag prizes.

**Sport:** This Committee organizes VTU competitions and faculty Cricket tournament. It also organizes inter-departmental sports event. Our students actively participate in various sports at inter-collegiate, inter-university, state, national and international level.

**Magazine:** 'JITimes' is the annual magazine published by Magazine committee. Students express their talent in the form of articles, poetry, interviews of eminent personalities. This exercise imbibes societal values in students.

**Technical Activities:** Every Department has active Students' chapter associated with a professional body such as IEEE, SAE, CSI, and ICI. These chapters conduct various programs such as Expert lectures, Industrial visit.

**Newsletter:** Every Department releases its Bi-annual Newsletter showcasing the creativity of students and accomplishments of the department.

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

**Response:** 25.6

#### **5.3.3.1 Number of sports and cultural events/competitions in which students of the Institution**



**participated year-wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
24	33	25	26	20

<b>File Description</b>	<b>Document</b>
Report of the event	<a href="#">View Document</a>
Number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions (Data Template)	<a href="#">View Document</a>

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

The alumni association is registered as “Alumni Association of JIT” under the Karnataka Societies Registration act in 1960 with the registration number 323/2015-16.

Alumni of the college are rendering their service to organisations of national/international repute. They are spread across the globe. Alumni of the college have a sense of belongingness and responsibility towards the institution. A few Alumni have settled down as Entrepreneurs. They play a significant role in the development of the institution. They contribute directly or indirectly for enhancing the skillset of the students. Alumni deliver guest lectures on recent trends in technology and create awareness on the industrial requirements. They motivate the students to acquire the knowledge and skills desired by the employers.

Alumni share information regarding the employment opportunities available in the firms where they are discharging their services. Alumni provide feedback which is invaluable to the organization in training the students. They create awareness on PEOs, PSOs and POs. They organise workshops on technical topics, team work, inter personal skills and other aspects of personality development. They provide all inputs required for properly orienting the students to set their career goals and enable them to plan their future. Alumni are also contributing to the development of software required for the institution process and system.

Alumni also motivate interested students in pursuing higher education in India and abroad. Apart from this, the students are also encouraged by the Alumni to take up various social activities. Efforts are being made by the Alumni to raise funds for the development of the institution. An Alumni meet is held every year in the institution. The institution offers best alumni award every year in recognition of their contribution to the institution in particular and society in general.

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

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

**Response:**

## Criterion 6 - Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

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

##### Response:

The Institution governance is the charter of structures, processes and activities that are involved in the planning and direction of growth of the institution. The governance team is the most important team that appreciates the current status of the revenue generated and defines the plan toward excellence for the institute keeping the macroeconomic, academic and social impacts of the education imparted. The institute has multiple facets to its operations – research, teaching, finances, entrepreneurship, Industrial linkages and social responsibility. A strong governance framework ensures that the limited resources of the institute viz., manpower and financial resources- are put to the best impact despite competing priorities. Strong governance would lead to effective implementation of rules, regulations & protocols. Strong governance is the key to keep the stake holders, viz., society, industry, academia & research community, students, alumni satisfied and hold high esteem for the institution.

The governance process of JIT is as below:

- Develop the strategic direction of the institution
- Connect to the larger societal ecosystem – including the learning community, industry, society, alumni, students and the government
- Allow the voice of the varied stakeholders of the institution – society, industry, academic and research community, students and alumni, are adequately included in the strategy and operations of the institution
- Ensure the best and robust implementation of protocols
- Prioritise among the competing functions of the institution for the share among finite resources –aligned to the overall strategy of the institute

#### Governance Structure

The governance of the institution is through the Trust, Jyothy Charitable Trust. The chairperson with other four trustees governs the institution. The amendments and new initiatives are proposed in the Governing council, brainstormed and after acceptance of the minutes; the proposed amendments/ new initiatives are implemented in full force. The principal is the member secretary of the council and is the executive to implement the rules and regulations laid by the institution.

#### Focus of Governance- Quality Teaching and learning through Research & Product Development

Established with a vision to be an Institution of Excellence in Engineering education, Innovation & Research and work towards evolving great leaders for the country's future, JIT has the primary objective of producing technical/ engineering leaders for the nation. This is possible through creating an eco-system to harness the creativity in students and mold them to become assets for tomorrow. This ecosystem has been

created at JIT by establishing an autonomous R& D Centre with an independent authority, the director, reporting to the chairperson. The principal & staff members and the director work in tandem to groom intellectuals. Each department has select faculties, having inclination for research, working in the R & D to facilitate students to carry out their projects and research to promote product development. JIT has more than 20 incubations on campus both CIIRC and Atal Incubation Centre put together. JIT is on the path of product development and is inculcating entrepreneurial attitude in the minds of students through several student incubations for product development and promotion.

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

#### **Response:**

Decentralization and delegation are practiced to the core. The Institution has given equal representation in Various committees at all levels from Professor, Associate Professor and Assistant Professor and also student representatives from various Departments to foster team culture and facilitate the progress of work. Leadership is ascertained at all levels. The college promotes the culture of participative management in all activities. The opinion of the Faculty is taken into consideration in the Department level meetings. The Heads of the Departments and the Principal discuss various issues and arrive at suitable decision.

The following committees are constituted to decentralise the academic & administrative activities

- Proctorial System
- Ethics & Discipline Enforcement Cell
- Grievance & Redressal Cell
- Time Table & Exam Cell
- Anti-Ragging Squad
- Infrastructure development Cell
- Budget Allocation and Purchase Team
- Hostel Management Team
- Jyothy – Sports Activity Team (J-SAT)
- Library & Information Centre Team
- Jyothy Cultural Activity Team (J-CAT)
- Alumni Interaction Cell
- Placement & Training
- Anti-Sexual Harassment Team
- SC / ST / OBC Welfare Committee
- e-Works cell
- Magazine/ Newsletter Cell

The Principal conducts meetings with the Heads/concerned in-charges and in turn they conduct the meeting with the faculty and staff to discuss various issues. Resolutions made at the department level will

be passed on to the Principal for further action. The outcomes of the meetings chaired by the Principal also will be passed on to the individual faculty or staff for implementation.

The academic responsibilities will be looked after by the Principal, vice principal and the Heads. Faculty members report to the heads of various departments. The R& D wing of the institution, “Centre for Incubation, Innovation, Research and Consultancy” (CIIRC) is an independent entity governed by the director who reports to the chairperson of the institution. All research activities of the institution are carried out under the supervision of Director of CIIRC. All faculty members report to Director of CIIRC for research related matters.

Heads of various departments are given free hand to plan the activities of the department and the Principal’s office provides all support to the department. All departments have separate savings bank account to operate and they are empowered to spend up to Rs.10000 per month. The signatories of the accounts are the respective heads and the management committee member. The expenditures incurred by the department faculty members for conference, publication of paper are reimbursed through the department account after approval by the Principal. Further, the Principal is empowered to spend Rs.50000 per month and has a separate account jointly with Management. All faculty members have to follow protocols and hierarchy of organizational structure. Neither the Principal nor the Head would interfere in the duties of faculty members while finalizing the sessional requirements of students.

The office personnel report to Principal and work in coordination with the department personal assistants to Head to map requirements of students of respective departments. The general maintenance staff such as electrician, carpenter, plumber housekeeping report to Principal’s personal assistant.

## 6.2 Strategy Development and Deployment

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

#### Response:

Yes, the strategic plan and deployment documents are available. Coherent to the Vision and Mission of the Institution the following are the salient features of the strategic plan.

#### Perspective Plan (vision document for next decade)

- Improving Under Graduate (UG) and Post Graduate (PG) Education by incorporating add-on multi-

disciplinary courses from industry professionals for students.

- Increased initiative to become an institution of excellence in engineering by onboarding of high profile technical people in the society to leapfrog into an orbit of higher level.
- Focus on developmental aspects such as innovation, incubation, curriculum improvement, infrastructure enhancement & accreditation. Work to see other institutions benchmark JIT for comparison on OBE.
- Initiate a faculty and student exchange programme with foreign university
- Improving Research and Development, Industry Interaction, Collaboration with Foreign Universities, Alumni Interaction, Entrepreneurship and outreach activities.
- Envisioning the establishment of an autonomous institution and aiming to offer world-class education and research through reputed international collaborations.

The perspective plan can be accomplished through implementation of carefully designed action Plan and involvement of stake holders at appropriate levels. Review of performance, Assessment of Quality Parameters provide clarity in achieving the Strategic Plan through:

1. Increase in number of Research Publications

2. Quality improvement in Faculty Publications

3. Introduction of ICT based Teaching – Learning process

4. Create Research ambience in terms of R&D centres which can execute R&D projects from funding agencies

5. Offer value added certification courses

6. Strengthen Industry-Institute Interaction

7. Improve consultancy services

8. Innovative practices in Teaching – Learning Process

9. Encourage students for better Academic Performance

10. Functional MOUs with Industries

11. Conduct Workshops/Seminars/Conferences

12. Recognized Research Centres

With the action points stated above implemented, the number of placements in the campus recruitment drives have been exponentially increased. To hone the employability skills of students, JIT provides in-house training and also training from external agencies. A team of faculty have been identified to train the students in relevant coding such as C/Python-Programming, Communication Skills, Soft Skills, Reasoning and Aptitude. Campus specific technical training is also provided with the help of experts in the field. The

sessions are held on periodically and the students are motivated to attend the programmes. Curiosity is created and sustained. Students are provided with ample opportunity to practice and improve their capabilities. Special sessions are arranged to mould their behavioural aspects and personality traits viz. Attitude, Empathy, Situation Management, Decision making, Conflict Resolution and Assertiveness. The institution nurtures all-round development of the students. As a result, the students face the recruitment process confidently. Special sessions are held on resume building. Interview Skills are imparted and Mock Interviews are held to improve the confidence levels of students. Owing to all these efforts, with adequate financial support of the management, the number of placements have constantly increased.

The institution has plans to get autonomy after completing 14 years of existence. In the meantime, institution has secured NIRF & ARIIA ranking. The institution has plans to go for NBA accreditation for the second cycle after completion of three years with effect from June 2018 by submitting the compliance.

File Description	Document
strategic Plan and deployment documents on the website	<a href="#">View Document</a>

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

#### **Response:**

The Organogram of the Institution clearly indicates the organizational structure of the Institution for the smooth functioning of the Institution. The Institution has a set of well-defined rules and procedures which form the central frame work in the organization of the Institution.

#### **Administrative Setup:**

Governing Council is the highest decision-making body. Principal is the Member secretary in the governing council. Principal holds all the powers/responsibilities with regard to academic and administrative matters. He also functions as the Chief Superintendent of the Examinations and all Heads are Deputy Chief superintendent. He assigns various tasks to the faculty members and other technical staff.

The Administrative functions are taken care of by the Clerical Staff and other secretarial staff under the supervision of the Administrative Officer. All the departments have department offices which function under the guidance of the respective Head.

Heads have autonomy to take decisions in administrative matters, to sanction staff leaves, endorse payments, etc. The Heads initiate appropriate administrative measures for facilitating an effective Teaching-

Learning process.

### **Decentralization in Academics**

Decisions in Academic matters are decentralized to the maximum extent. Allotment of course work, monitoring of syllabus, planning and organizing seminars, guest lectures, workshops, Industrial Tours, orientation programmes, value added courses, project works are carried out under the guidance of Head. The Department Advisory Board makes necessary suggestions for the improvement of the curriculum and the enrichment of the Teaching Learning Process.

### **Delegation of Financial Power**

The Principal and Heads have autonomy to take financial decisions with regard to procurement of Lab equipment, funding seminars, workshops and conferences. The Principal has an imprest amount of Rs.50,000/- and the HOD has an imprest of Rs.10,000/-

### **Service Rules**

The institution has documented service rules and the same is available on the website under mandatory disclosures.

### **Recruitment of Faculty**

.The institution follows the cadre ratio and the faculty ratio provided by the University/AICTE from time to time. To fill the vacant posts, applications are invited through newspaper/website advertisement. The applications are sent to the head of the department to sort them based on the required qualifications and accomplishments. The shortlisted candidates will be interviewed by a committee having a domain expert from a premier organization.

The staff members have casual, Half pay, Earned, Maternity and other forms of leave. The institution offers sixth pay with appropriate DA. The institution pays PF to all staff members.

### **Constitution of Committees**

The institution has constituted various committees (Pl see 6.1.2) to oversee the activities of the institution. Some of the committees have an NGO, Local Police Inspector and advocate as members.

### **Purchase Committee**

To purchase equipment and other items to the departments, an indent has to be raised and sent to principal's office. After approval from the purchase committee, quotations are drawn from various vendors. The orders are placed with vendor who offers least quote, good service and quality. The equipment received will be taken into stock register and the payment is released.



File Description	Document
Upload any additional information	<a href="#">View Document</a>
Link to Organogram of the Institution webpage	<a href="#">View Document</a>

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

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

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

File Description	Document
Screen shots of user interfaces	<a href="#">View Document</a>
ERP (Enterprise Resource Planning) Document	<a href="#">View Document</a>
Details of implementation of e-governance in areas of operation, Administration etc	<a href="#">View Document</a>

## 6.3 Faculty Empowerment Strategies

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

**Response:**

The Institution extends strong support to the Teaching as well as the Non-Teaching staff by adopting various welfare measures. This creates a congenial atmosphere and enhances the work efficacy.

**Welfare Measures:**

1. Institution has implemented sixth pay with 113 % DA and 30 % HRA. Financial assistance for the Teaching Staff for attending Conferences/Workshops/Faculty/skill up-gradation.
2. The institution offers PF, Accident insurance to the entire faculty.
3. The institution offers group medical insurance for faculty.
4. The nonteaching staff is provided with PF, accident insurance and ESI.
5. Maternity Leave is provided to all the deserving women employees with six months leave and full pay for three months.
6. The to and fro travel charges of faculty accompanying student competitions will be borne by the Institution.

7. Institution offers 12 days of Casual leave, 20 days of Half Pay Leave (Medical Leave) to all teaching faculty. The administrative staff, nonteaching staff and heads of various departments are covered under Earned leave. The earned leave offered is 1/11 of the working days in a calendar year.
8. The bus drivers, housekeeping staff and all other staff are also covered under Earned Leave.
9. The institution has reserved land to build quarters for the staff.
10. The institution supports the low-income staff financially.
11. The trust offers scholarship for the children of low-income families to the tune of 10000 rupees per family.
12. Lunch facility in the canteen at subsidized cost
13. Seed money provided for Research Projects
14. Financial Assistance for obtaining Patents for innovative Research
15. Financial Assistance for Mini projects
16. Teaching Faculty are encouraged to present research papers in conferences organised by reputed institutions with travel allowance.
17. Teaching faculties are sponsored to participate in faculty development programs, training programmes and workshops in good institutions. The entire travel and incidental expenses are borne by the institute.
18. The teaching faculties are encouraged to take up Doctoral studies in premier institutions such as IIT's, NIT's and IISC's.
19. The technical staff are allowed to pursue higher studies under QIP/Career advancement scheme

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

### 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:** 31.78

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

2019-20	2018-19	2017-18	2016-17	2015-16
8	62	12	10	42

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Details of teachers provided with financial support to attend conference, workshops etc during the last five years	<a href="#">View Document</a>

**6.3.3 Average number of professional development /administrative training programs organized by the institution for teaching and non teaching staff during the last five years****Response:** 2.4**6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years**

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

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff	<a href="#">View Document</a>

**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:** 13.08**6.3.4.1 Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course year-wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
9	17	5	13	13

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Details of teachers attending professional development programmes during the last five years	<a href="#">View Document</a>

**6.3.5 Institutions Performance Appraisal System for teaching and non-teaching staff****Response:**

The institution has implemented the Faculty Performance Appraisal and Development System (FPADS) in the institution. The faculties are assessed based on their performance. The performance indicators and credit points for each indicator are devised. The Appraisal indicators are circulated to all faculties. The performance is assessed by the respective department head and a report on individual faculty will be sent to the principals' office. The management after due consideration to the credit points scored and heads recommendations awards annual increment/ promotion. The technical staffs are also assessed before awarding increment/ promotion. The system is entirely transparent and performers get the recognition due to them.

The assessment is done based on three categories for 700 credit points for teaching staff. The three categories are Academic, R&D, other activities of the department and institute. The faculties are required to score 50% in academic of the credit points to earn their annual increments.

The academic category includes parameters/indicators such as

Subject results, Lab results, NPTEL Exam, Membership of Professional Bodies, Technology up gradation, Workshop attended, Book written, Book Chapter, Gate Coaching offered to a batch of students, Proposed problem & solution to Smart India Hackathon, Invited for expert talk, Student Hobby Projects engaged, University Valuation, Effective Proctor work, Innovative teaching metHeads, Student feedback and so on. The R & D assessment indicators includes research publication in Scopus Indexed Journal Papers/SCI journals, Funded Projects, Consultancy, KSCST Projects, Conference attended, Conference paper presented, Poster presentation, invited as conference chair, Patent, doctoral Guidance and so on.

The other curricular and extra-curricular coordination includes Workshop /FDP / Symposia/-With Funding from AICTE, VTU, ISTE, IE, MSME or other/ Hackathon /Induction/ Centre of Excellence, Student Development Programme, Industrial Visit, Invited Talk, Technical Talk

Swacch Bharat Mission/ FIT India/ Unnat Bharat Abhiyaan, Outbound Activity, Overseas Education Help Desk, Foreign Language Classes, PMSSS, Bridge Course, Community Development Programme, Student welfare activity-awareness camp/Medical camp, Sponsorship for student activities, MOU, YOGA, Industry institute interaction, NSS, Mentoring students in inter collegiate events and won awards/ prize for our institution, Prototype Development, Instructional Materials, Working models/charts/monograms, Donated Blood and so on.

The annual appraisal report of both teaching and non-teaching staff is preserved in the office of the principal.

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

## 6.4 Financial Management and Resource Mobilization

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

**Response:**

The financial audit is done by an external auditor annually. There are no adverse remarks in the audit report in the last five years .The Budget is prepared well in advance and same is approved in the GC meeting. All efforts would be in place to implement the budget. The audited statements are displayed on the website under the mandatory disclosures.

The institution has opened joint accounts in the name of head and management committee member and the same is audited at the end of the year.

The Institution conducts external audits on all the Financial Transactions. The annual accounts will be audited by the Auditor of Jyothy Charitable Trust, Chartered Accountant (MP Mohan & Co.), Bangalore who is appointed as external auditors and they have been rendering their service since inception.

The external statutory auditors visit the college office once a year for vouching Audit and submitting the audit report. After completion, the final statutory audit report shall be submitted to the Governing council for approval in the month of September/October every year.

After approval, the documents are used for all statutory purposes.

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

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

**Response:**

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

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

**Response:**

Having given top priority to Quality in Education, the Institution has specific ways to mobilize Funds and adequate care is taken to effectively make use of the Financial Resources. Ample scope is given to generate

fund for enhancing the Teaching-Learning process and to develop the R& D activities. The Institution aims at a better fee structure by enhancing quality in education.

The main source of funding to the institution is tuition fee from students. The funding for taking up major projects is taken care by the trust. However, with the incubation of startups the institution would generate revenue through shares. The mobilization of funds for R& D is done through submission of proposals in specific domains to agencies with financial support from these agencies the project is executed & product development is supported. In addition to the above, the revenue generation is done through consultancy

Optimal utilization of funds is ensured in the following ways.

- For the payment of Staff Salary and other benefits.
- For the maintenance of campus and laboratories
- For the maintenance of office
- Other instructional facilities
- Adequate funding is provided for effective Teaching-Learning Process. This includes organizing orientation programs, FDPs, Workshops, Guest Lectures and providing financial support to attend such programmes.
- Budget is effectively utilized to meet day to day operations and other expenses related to maintenance of the fixed assets.
- The grants obtained from external funding agencies will be effectively utilized in implementation of projects and the procurement of the required equipment. Availability of the sophisticated equipment has resulted in creating the Research instinct and sustenance of the spirit
- Requisite Funds are used for improve Library facilities
- Adequate Funds are utilized for development of infrastructure
- Considerable funding is done for social activities thus fulfilling social responsibilities

Sufficient funding is provided for Physical Education and yoga. Organizing Techno fests and other extra-curricular activities

## 6.5 Internal Quality Assurance System

### 6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

#### Response:

To bring quality culture, sustenance of the quality IQAC is very proactive of all the academic problems of different department of the college are discussed and resolved in the IQAC meeting. It also sends suggestions to the principal in the academic & administrative matters. The internal quality assurance cell meets once in a semester, before the start of the academic calendar. The IQAC is functional from past four years. The IQAC was reconstituted as per NAAC guidelines in the year 2019. The IQAC has been

proactive in auditing various departments. The members of the IQAC include senior faculty members of the institution, industrialists and other stake holders. The members of the IQAC are empowered to audit the department according to the set SOP and the feedback be submitted to the chairman for further needful. The IQAC schedules and audits the departments in a very systematic way wherein the questionnaire prepared will be circulated to all members and the audit is done according to the questionnaire. After the audit the chairman will get the summary of the reports from various departments and all the issues relating to improvisation and action to be taken will be brainstormed. In addition to the internal audit, an external auditor will be engaged to conduct the audit. This would help in unbiased auditing leading to clear picture of the shortfalls and gives an opportunity for the institution interpret the parameters and identification of the gaps in the internal audit. Two auditors, Dr. Prabhushankar G from SIT Tumkur, a professional auditor and Mr. Savyasachi from Mysore were engaged for audit in the last two years.

The IQAC has been active in preparing the process documents. The processes developed are being appreciated by external audit member. The departments would earnestly implement the charter in their department activities as per process document. This would ensure standard operating procedure. The process documentation and implementation of the same resulted in success in NBA accreditation.

IQAC seeks intensive quality enhancement by external peers:

Maintenance of records and submission of AQAR to NAAC.

Promotion of teaching learning process

- Students Centric Activities: To make teaching learning more student centric and to enrich quality education, debates, group discussion, field visits, guest lectures were organized by the departments every year
- Entry in services for SC/ST/OBC students
- Feedback on teachers performance by students
- Effectively arrange study tours, field visits and industrial visits

Promotion and cultivation of research culture

Strengthened feedback mechanism

Student mentoring mechanism

Implementation of innovative and best practices

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

**Response:**

The college is undergoing NAAC Accreditation for Cycle -1 .As per the NAAC norms the IQAC was established by the college on 1-8-2016.

**The IQAC Structure**

The IQAC is constituted as per NAAC norms. The composition of IQAC is also displayed in the Institutional website.

The IQAC meets once in a quarter. The quorum for the meeting shall be two-third of the total number of members. The agenda, minutes and Action Taken Reports are to be documented with official signatures and maintained electronically in a retrievable format.

**Goals**

1. To develop a quality system for documenting, auditing and mentoring academic and administrative performance of the College to ensure continuous evolution.
2. To promote measures for institutional functioning towards quality enhancement through standard process and practices and constructive feedback.

**The IQAC has the following functions**

- To support academic and administrative activities of the college for quality improvement and sustenance.
- to document and publicize documented system and create awareness, train people
- to prepare a set of people as qualified auditors to check implementation
- to conduct frequent audits to check implementation of documented system
- review audit findings, initiate, track and close corrective and preventive and corrective actions thereof

To create database which will be helpful for AISHE, NBA and NAAC.



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

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

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

<b>File Description</b>	<b>Document</b>
Upload e-copies of the accreditations and certifications	<a href="#">View Document</a>
Upload details of Quality assurance initiatives of the institution	<a href="#">View Document</a>
Upload any additional information	<a href="#">View Document</a>

## 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:

Discrimination on the basis of caste, creed, religion or sex is completely wrong and inexcusable. The institution has always been committed to the support and practice for social justice and rights of all human beings. JIT ensures that everyone is given the respect that he/she deserves and that no one should feel inferior. Here are few measures through which JIT promotes gender equality at workplace.

##### 1. Curricular activities

- The institution has no discrimination for gender. The gender ratio of faculty appointed in the institution is nearly 60:40 in favor of women. Equal pay irrespective of the gender of the employee. The institution has provided equal opportunity and a common platform for all genders to perform in all academic/nonacademic matters.
- Anti-sexual harassment committee and internal complaints committee are functional for the safety of female students and staff.
- The institution has implemented maternity leave for six months for the lady faculty with full pay for three months.
- Institution celebrates international women's day every year as a part of gender sensitization. A woman achiever will be felicitated to appreciate the contribution of woman to the society
- Every year the women's day will be celebrated by honoring a luminary from the society. Last year the women's day was celebrated in as Business-Plan contest was conducted for women entrepreneurs and awards were given to best business plan. The winners will be provided with technical assistance and Venture Capitalist support for incubating a company
- It is proposed to conduct awareness lectures on gender equity as per constitution of India from legal experts.

##### 2. Co-curricular

- Sports for all staff will be held ahead of the republic day. The prizes and awards won are presented to the winners on the republic day every year.
- The management offers gifts to all faculty members on Engineers' day celebrations to encourage them to improve their performance.
- All female faculty and students are permitted to participate in cultural competitions.
- 
- The institution has a separate hostel for girls in the city. Free transport is provided for commutation between college and hostel.
- 'Separate girls' common room is available with water and washroom facility.
- Sanitary napkin vending machine is available for all female faculty and students. An incinerator is

provided for disposal of napkins

- Separate washrooms are reserved for female faculty.
- The anti-sexual harassment committee constituted has the local police chief and an advocate as members. An NGO is a part of the internal complaints committee. These committees have been constituted as per VISAKA guidelines.
- The institution has constituted ethics discipline enforcement team and anti-ragging committee to control unlawful behavior and activities.
- The institution has appointed a woman counselor to counsel students and staff. The students can share their grievances with the counselor and the same would be discussed and resolved.
- It has been planned to open a daycare centre for the children of married woman staff on campus.
- It has been planned to conduct many gender sensitization lectures/workshops/seminars in the next couple of years.

File Description	Document
Link for specific facilities provided for women in terms of: a. Safety and security b. Counselling c. Common Rooms d. Day care center for young children e. Any other relevant information	<a href="#">View Document</a>

### 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
Any other relevant information	<a href="#">View Document</a>

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

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

**Response:**

The institution has taken various initiative to improve waste management in the campus.

### **Solid Waste Management**

The institution campus is located in the outskirts of Bangalore city. The first category of solid waste (Plastic: bottles, bags, Styrofoam) collection truck from the local Panchayat serves the college and surrounding areas with no distinction in route or specialized disposal. Therefore, the collection truck is partially filled when it comes to the campus. Usually, the solid waste collection vehicle comes once daily unless there is a need for another collection round. The solid waste generated on campus is collected in three different colored trays/buckets/bins for different types of garbage. One for plastic, second one for cardboard, Glass, Metals, Leather, Rubber, Textile, etc. and the third caters to food dry waste. The hazardous wastes are disposed- off at different location scientifically. After collection of the solid waste of category 1 is completed the truck goes directly to trash/garbage disposal location. The organic waste produced such as tree leaves on campus is collected and dumped in a pit for manure. The cow dung, cow urine, tree leaves and other degradable ones form the part of the collection pit. The manure produced is used to grow vegetables on campus.

The institution also a member of the Swachh Bharat Mission, an AICTE initiative.

### **Liquid waste Management**

The institution has a STP on campus. The waste water from the entire campus is processed in the STP. The treated/recycled water from the STP is used to grow grass & vegetables for use.

### **Biomedical waste management**

The institution does not produce any Biomedical Waste.

### **E-waste management**

The institution has an MOU with an e-waste management firm to dispose- off the e-waste scientifically.

### **Waste recycling system**

The kitchen waste is used to produce gaugas for use in kitchen. The waste from the Gaugas plant is converted to manure for use in the campus farm. Paper shredding machine is used to dispose waste paper.

**Hazardous chemicals and radioactive waste management**

The institution does not produce any hazardous and radioactive waste

File Description	Document
Link for Relevant documents like agreements/MoUs with Government and other approved agencies	<a href="#">View Document</a>

**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:** C. 2 of the above

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

**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	<a href="#">View Document</a>

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

1. Green audit
2. Energy audit
3. Environment audit
4. Clean and green campus recognitions / awards

### 5. Beyond the campus environmental promotion activities

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

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	<a href="#">View Document</a>

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

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

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

File Description	Document
Policy documents and information brochures on the support to be provided	<a href="#">View Document</a>

### 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:**

Jyothy Institute of Technology is an institution started by a philanthropist Late Dr. B N V Subrahmanya. The primary objective of the institution is to help the middle and lower middle-class people by offering moderate fee and scholarships for the meritorious & needy in the society. The secondary objective of the institution includes building an institution of excellence in innovation and product revolution. The tertiary objective is to provide an inclusive environment for all stake holders.

JIT has institutionalized a multicultural inclusive environment for all students and staff. Students are studying in a safe environment that allows for courageous conversations. No student has been treated with bias and had no reports of such act on campus. Students can give feedback on faculty online and anonymous. They can report their personal grievances online. Institution has offered a fair and free environment to all students. Faculties have been tolerant and live in harmony on campus. The students from different states stay in the hostel in harmony. A coordinator will engage these students to ensure their interests are protected and feel homely on campus. There is no gender discrimination as well. Being a co-education institution, students are free to sit in the class as per their choice. All students have been given equal opportunity to participate in any activity on campus, viz., cultural, sports, academic, technical etc. All are treated equal. There is no regional dominance or dictatorial attitude. All linguistic barriers have

been removed for comfort. Apart from these there is no caste divisions allowed in the institution. The institution has a right mix of students from all castes. All are treated equal without any discrimination.

As far as faculties are concerned, the gender ratio is healthy. Equal opportunities have been given to all male and female faculty members. No discrimination in terms of caste, sex, creed. There is no divide in the faculty on the lines of state, region or any other. Maternity leave is offered with full pay to female staff members.

The Principal and the management are accessible to all students and staff all time. They can report their grievances to the Principal without violating hierarchy and set protocols.

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

#### **Response:**

The institution is conducting many programmes to sensitize students with regard to constitutional obligations. For the MP elections held in the year 2019, workshops were conducted to make students familiar with the operation of the Electronic Voting Machine. It also deliberated on the importance of voting and also warned every student not to do proxy voting. The voting machines were deployed for hands on training for students. Badges with a quote VOTE FOR INDIA were distributed among all students.

Faculty who are eligible to cast their votes in the graduates' constituency & MLC are allowed to go on permission/official duty.

The curriculum also has a course on constitution of India and professional ethics. This encompasses most of the constitutional powers of various functionaries. It has Introduction to the Indian constitution, the making of the Constitution, The Role of the Constituent Assembly - Preamble and Salient features of the Constitution of India. Fundamental Rights and its Restriction and limitations in different Complex Situations. The syllabi include discussions on Union **Executive and State Executive, Elections, Amendments and Emergency Provisions, Constitutional Provisions/ Local Administration/ Human Rights & Professional / Engineering Ethics.**

The newly introduced induction program for first year students has a component on ethics, morale, mentoring and universal human values. Mentoring takes place in the context and setting of universal human values. This would help a student to explore oneself and allows one to experience the joy of learning, stand up to peer pressure, take decisions with courage, be aware of relationships, be sensitive to others, understand the role of money in life, and feeling of prosperity, etc. It also addresses the issue of human values as enshrined in our constitution like justice, liberty, equality, fraternity, human dignity and the unity and integrity of the Nation.

In the recent outbreak of pandemic COVID-19, all safety measures are taken in the institution such as providing sanitizer to all staff members. Entire campus and hostels were fumigated to control the spread of virus. The institution adhered to guidelines given by the government from time to time. The instructions received from the university are being followed.

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

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

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

<b>File Description</b>	<b>Document</b>
Details of the monitoring committee composition and minutes of the committee meeting number of programmes organized reports on the various programs etc in support of the claims	<a href="#">View Document</a>

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

**Response:**

Since beginning the college management has been taken initiatives to inculcate patriotism among the students and awareness about great Indian personalities and contribution made by them to the society so that the positive attitude can be developed to serve the nation in the better way. Today's students are tomorrow's citizens, so the future of the nation depends on them. If the students are directed in this way our country will prosper which finally leads to sustainable development.

The Institution celebrates the following programmes and events annually

**1. Independence Day**

All staff members must participate. Principal will address all faculties on the importance of celebration. The flag hoisting is performed by an elder faculty of the institution.



## **2. Republic Day**

The institution celebrates the Republic day every year with vigor and purpose. The faculty sports competitions will be organized ahead of the republic day and the prizes and rewards are distributed by the guest of Honor.

## **3. Engineers Day**

The engineers' day will be celebrated with full vigor and color. The agenda for the day is to honor an engineering celebrity/achiever in the field of engineering. All faculties would be appealed to follow the footsteps of the celebrity. The management offers gifts to all faculties on campus as a mark of respect to the engineering professionals. Student winners in various events would be honored on the occasion.

## **4. International Women's Day**

The international women's day is celebrated on the lines of engineers Day. A woman achiever/celebrity would be felicitated on the day. The accomplishments of the guest would be brought to the notice of all to emulate.

## **5. International Yoga Day**

The yoga Day will be celebrated to imbibe the values of Yoga therapy. Yoga teacher appointed on part time basis has been teaching yoga for hostel students.

## **6. Teacher's Day**

Teacher's day is celebrated every year on September 5th which is the birth anniversary of Sarvepalli Radhakrishnan to motivate the faculties.

## **7. Alumni day**

The alumni day is celebrated on 15th of Aug every year. All Alumni are invited to the event, fun games arranged. The office bearers of the association would coordinate and conduct the programme.

## **8. Annual Best Outgoing Student award ceremony**

Department heads would enlist best two outgoing students of final year based on certain parameters / attributes furnished by the principal's office. All the toppers would be interviewed by a panel headed by an outstanding personality. The best outgoing would be awarded a gold ring and all others a silver ring.

### 9.Red Cross day/ NSS day

A blood donation camp is conducted every year as a part of social responsibility. A minimum of 200 units of blood would be donated by both staff and students.

### 10.Mathrubhasha Divas

The institution celebrates the Mathrubhasha Divas to bring students from different parts of the country on common platform. Preference will be given to all languages.

File Description	Document
Link for any other relevant information	<a href="#">View Document</a>

## 7.2 Best Practices

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

**Response:**

**Best Practice number 1**

**1. Overseas/National technical competitions**

**2. Objectives of the Practice**

The objective of this practice is to train and prepare students for the / national/ international Technical competitions. This would allow students to compete at the national/international level. An exposure to national /international event would enormously increase the confidence of students. They would evolve into professionals instead of graduates. This would add to the talent bank of the country and would be an asset to the nation. Every student would be exposed to newer technologies, understand the nuances of the art, inculcate networking and develop into a high class personality.

### 3. The Context

The challenge lies in making students acquire skillsets required to participate in the international event. This requires industrial training, domain expert support, financial support and finding sponsors for the event. No sponsor/industry would come forward to meet the expenses unless they are convinced about the quality of the students participating in the events. The students need to prepare round the clock/year to take part in such events. Institution needs to provide facilities for the students to work 24 x 7. A mentor needs to be available all time to mentor the mentees.

### 4. The Practice

Higher education brings a student just one step closer to industry. Higher education dictates the class of life and standing a person would have in society. The student needs to get ready for his/her professional life shrugging academic mode. This would make a student to face cultural challenges when they enter the portals of an industry. They will be tested for their perseverance, time sense, presence of mind and commitment. Hardworking students would find the new life interesting and challenging whereas the other would find it difficult to navigate. Hence an exposure to technical challenge at the national/international level would cast a student to match with industry requirements.

The technical activity starts from identifying the best talent to undergo such training. They need be proactive, tech savvy, have an urge to excel, committed to the cause and ready to conquer the technology. Once such student groups are formed, they need to hone their skillsets. This requires mammoth training by experts in the domain of competition. Selection of the expert is another challenge as most of the industry trainers/experts have aversion to provide such training due to student aptitude/ attitude issues. They need to train the students in the extended working hours and on holidays. Students are also required to comply with the academic requirements & schedules and also spend time with the expert. This asks for good physical and mental fitness level with zero tolerance for fatigue. Once the students are technically capable, they need to acquaint with international travel arrangements, immigration issues, visa and weather thereof. The students may pick-up health issues overseas leading to chaos. With all these challenges if a student is able to make an indelible mark in the competition and bring laurels to him/her & institution, nation would be blessed to have a talent.

A team of such students would groom the next team ready for the competition in the following year. This should become a culture and should not be allowed to die down with time. Sustenance of such activities is also a challenge for an institution.

## 5. Evidence of Success

The hall mark of any technical institution is success in technical competitions in the country and abroad. JIT students have been participating in such international events from past several years. JIT students have been participating in the international SAE AERO design competition from past three years. They stood fifth for the entire world in the last three editions of SAE aero competition held at Texas and California.

In the Eko- cart competition, design and development of an all-electric & all-terrain vehicle, held at Gautama Buddha University, students were able to have a podium finish (first place) in one of the category.

This year too students are ready to participate in the overseas competitions. The Carona-Covid19 has cast shadows on this year's event. This has been converted to a virtual competition. This year, the students have turned to design and develop new type of electric vehicles They have designed an electric push cart for veg vendors and garbage disposal system.

## 6. Problems Encountered and Resources Required

The resources required include a state of the art design lab. Facility for fabrication of the multiple iterations of the prototype development. A 3-D printing machine facility to realize the shape & size of the product / vehicle and manufacture the variants of the device for performance. Performance Study of the device/vehicle and critical assessment. An expert to guide and marshal the resources is a must.

The problems encountered include making students work hard and prepare them for the journey ahead. They need to understand the behavior of the other members of the team and work in unison. They will have to admit & accept the capability of other members and appreciate the excellence of the other. Each one needs to adapt to the situation and work as a team to succeed. Keeping this apart, the other minor problem encountered to proceed with the project is the budget required to meet-up with the expenditure, if it exceeds the sanctioned budget. This calls for publicity and sponsorship.

## 7. Notes (Optional)

Please add any other information that may be relevant for adopting/ implementing the Best Practice in other Institutions.

The institution has been working towards excellence by adoption of practices such as regular interaction and input from stake holders, financial support to faculty for research and publications, performance based appraisal and monetary benefits, use of renewable energy, robust proctoring system, paid internships for

students, startup support to students & staff and providing an R& D environment for the staff and students to excel. In addition, yoga training & foreign language classes for the students.

## Best Practice number 2

- 

### Incubation

## 2. Objectives of the Practice

### Objectives:

To promote entrepreneurship by enabling aspiring individuals, students and faculties to incubate and to build their start-up Ventures.

To create job creators in the society.

### Intended outcomes:

Successful startups from our thurst areas i.e Materials, Food, Device and Sensors. Products and solutions addressing Sustainable Development Goals.

Reach of technology to Market place.

Students taking entrepreneurship as a career option.

- 1.
- 2.

Though setting up a world class infrastructure for a business incubator is a challenging task, AIC-JITF successfully established the ideal infrastructure with sophisticated laboratories, to accommodate the startups with different phases. AIC-JITF established a strong network also with potential investors, VCs, Mentors.

## 1. The Practice

**Atal Incubation Centre – Jyothy Institute of technology Foundation (AIC-JITF)** is an incubation center supported by AIM, NITI Aayog, Govt of India. It marks a new era in the field of scientific entrepreneurship enabling aspiring individuals, students and faculties to incubate and to build their start-up Ventures.

AIC-JITF is housed in . AIC-JITF leverages all the resources that are available within the campus such as access to laboratories, workshops, development, testing centre, computing resources, internet , library and above all highly experienced and knowledgeable human resource.

In addition to these AIC-JITF also has access to network of eminent professionals, academicians, bankers, venture capitalists and businessmen, who can extend their support to new ventures. AIC-JITF focuses on the following thrust areas

- **Materials**
- **Food Technology**
- **Devices and Sensors**

AIC-JITF associated with several Academic Institutions to spread the entrepreneurship eco system among students during their graduation itself. Entrepreneurship awareness programs and other Training programs are frequently conducting at these Institutions. Students also participate in Hackathons , Gamethons organised by AIC-JITF.

■

AIC-JITF is a section 8 company registered under companies act on 04-Sep-2018. As per the objectives, AIC-JITF has designed and implemented its action plan. Since the incubation centre is very young only the short term results can be measured. For this still nascent industry, benchmarks, metrics and milestones are not very well standardised or defined for a business incubator. As mentioned, below are the short term results (evidence of success) of AIC-JITF.

Start-ups incubated- 18

Academic partnership – 16

Corporate partnership - 11

Events organised – 36

Training programs conducted- 31

Mentors on board – 19

Funds leveraged – 5.06 Crores

Jobs created – 63

•

**Incubator point of view:**

**Domain Expertise availability:** Though we have three major thrust areas under which startups are enrolled, as they work on different products, addressing their requirements is a challenging task.. Though we have pool of mentors on board, still we are looking for more knowledge resources to give end to end support our start-ups.

**Manufacturing Facility:**

- As previously mentioned, each stage of the start-up requires different types of investors depending on the fund size. Finding the investors at each stage (Accelerators, Angel Investors, and Venture Capitalists etc.) is a very challenging task.

**Incubatees' point of view:****Funding Support:**

Depends on the stage of the startup funding requirement differs. Each stage of the startup looks for different investors. It is a challenging task to get steady flow of funds or investors for a start-up irrespective of how impressive or promising their product and business model is.

**Development and testing:**

Development and testing of new product requires sound technology and expertise knowledge. As each start-up is different, to cater their requirements a business incubator needs to have different technological platforms and domain expertise.

**Marketing/ Branding Challenges:**

Every start-up begins their journey in the business world with some initial hiccups. Marketing and Brand building are the major where business incubator needs to support in establishing their brand in the market.

File Description	Document
Link for any other relevant information	<a href="#">View Document</a>
Link for Best practices in the Institutional web site	<a href="#">View Document</a>

**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:**

JIT though initially started as a typical teaching institute in 2011, undertook a white space finding activity in the year 2016 and decided to **prioritize Research, Innovation and Incubation addressing society & environment amalgamating both science & technology to be the cornerstones** of its journey forward alongside teaching and since then embarked on a journey to transform itself. The same is aptly reflected in the NIRF and ARIIA 2020 rankings. JIT is ranked in the band 250 - 300 in NIRF and 26 - 50 in ARIIA by MHRD and the research centre CIIRC also has the distinction of being recognized as a Scientific & Industrial Research Org (SIRO Centre) by DSIR, GoI alongside its incubation centre AIC-JITF being amongst the top 5 best performing Atal incubators.

The institution started its foray by offering **Undergraduate Programmes (2011)** in five disciplines of Engineering with four of the programmes being accredited by **NBA in 2017** and has recently (2020) launched a new course on AI & Machine Learning. Besides this the Institution also initiated **Masters Programmes (2019)** in Mechanical Engg, CSE and Food Technology as well as **Doctoral Programmes (2018) in 12 domains approved by VTU**. The institution has a dedicated team of teaching and research staff with **43** doctorates and **53** masters who are alumni of premier institutes such as IISc, IIT, NIT, Central, State and Foreign Universities.

In line with its **motto of transforming** into a research & innovation driven institution, JIT has established an exclusive Multidisciplinary R&D Centre CIIRC in **Sep 2016** with research and innovation labs spread over approx 25000 Sq.ft at a cost of 25 Crores duly supported by Sri Sharadha Peetham Sringeri in **18** areas of S&T. The areas being Affordable Medical Devices & Sensors, Ancient Indian S&T, Autonomous Systems, Biocomposites, Cell & Molecular Biology, Computational Engg, Energy, Environment, Food Technology, Nanobiotechnology, Nanoscience & Engg, Plant & Microbial Technology, Remote Sensing & VLSI, Surfaces & Interfaces, Thermal Engg, Tribology, Water, Ink alongside a dedicated Sophisticated Instrument Facility housing instruments such as SEM XRD GC FT-IR DSC TGA and a host of other equipment. Students, Staff, Innovators & Incubates in house and from outside have the benefit of utilizing these facilities for carrying out their research, projects and internships.

The institution also has about 37 projects funded by DST, DRDO, DBT, MOES, DOS, VGST, KCTU, CEFIPRA, GITA, UGC-DAE, VTU which includes bilateral projects with France, Sweden, Belarus, ASEAN, Egypt and the European Union worth about 12 crores. The faculty have numerous publications in peer reviewed National and International Journals with good impact factor, indexed in Scopus/Thomson Reuters/Web of Science and a no of book chapters and books published by major publishing houses such as Springer, Elsevier, Wiley and others. Many of the research faculty have good metrics in terms of h index and citations and have developed over **25** products of relevance from societal and environmental perspectives and the same is being commercialized through the Atal incubation centre located on campus.

In terms of collaborations, the institute has 4 R&D, 29 Industrial, 6 International and 24 academic MOU's.



The faculty of the institute have been conferred with the following **awards**:

Commonwealth Fellowship, BRICS Young Scientist, DBT Women Fellowship, DBT Ramalingaswamy, CSIR, Raman Charpak (Indo-French) Fellowship, WOSA, WOSB from DST, BIRAC-Shrishti award DST Young Scientist, Soviet Union Grant Challenge, Member Executive Council of VTU and others.

The **highlight** of the institution has been hosting ISRO satellite receiver for data collection pertaining to IRNSS satellite, Leading the 4th Indian Scientific expedition to the North Pole (Arctic) for mapping arctic glaciers in Sep 2019 and thus by becoming the **first Indians** to fly drones in the arctic, Winning Bangalore Nano 2018 for the most innovative products display and Nano Sparx in 2020, Being the Pace setting car at the Asia Pacific Coffee-500 rally running our car on biodiesel made from WCO in 2017 and being selected to go to the South Pole (Antarctica) in Nov 2020 as part of an International expedition and much more.

To harness the research output the institute decided to establish an Incubation Centre and was selected by Atal Innovation Mission from NITI Aayog to set up the same in **2018 under the banner AIC – JIT Foundation which became operational in 2019.**

AIC-JITF is one of the four incubators in Karnataka that have been sanctioned in Phase 1 from NITI Aayog, GoI to promote start-ups and entrepreneurship culture. The total overlay of the project has been close to 15 Cr with 10 Cr supported by AIM and 5 Cr from the parent institute spread over 5 yrs. This is in addition to the civil infrastructure that came up at extra cost. **The focus areas of AIC-JITF are Food Technology, Sensors & Devices (including IOT) and Materials.** The incubation Centre is spread over 25000 Sqft and has exclusive incubate space allotted to each start-up ranging from 50 to 800 sq. The exclusivity was undertaken to ensuring confidentiality and privacy to the incubates besides the focus being more on wet lab activity which requires large work benches and non-contaminant work zones. The Centre also has a dedicated wet lab training hall, The incubation centre currently has 18 start-ups that have been incubated till date, with 8 of them getting BIG, VILGROW, INFOSYS, K-ELEVATE, DST, Angel & VC grants to the extent of **5.0** crores. Three other start-ups are in the pre-incubation stage. Besides this the centre has more than 25 MOUs with various other institutions & corporates and is helping them with co-incubation support. Till date more than 25 events and 30 training programs /workshops have been organized across 8 districts and 2 states. The centre has supported a few ATL in mentoring them and has the active support of more than 20 mentors internally and 13 externally.

In terms of its outreach activities the institute has adopted the local village, the institution is a nodal centre for the Unnat Bharath Abhiyaan campaign in order to make students experience various facets of life.

File Description	Document
Link for any other relevant information	<a href="#">View Document</a>

NAAC

## 5. CONCLUSION

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### Additional Information :

The main objective of the Institution is to promote Quality Technical Education and produce competent Human Resources capable of facing the Challenges of the Quality Conscious globalized world economy. The second objective of the organization is to provide a firm ethical base to the students that enable them to evolve themselves as Technocrats useful to the society.

The institution had well qualified and experienced faculty with real passion for their profession. The institution provides all facilities to enhance the employability and entrepreneurial skills of the students. Company specific Training is provided to fine tune the skill sets of the students to the corporate requirements. Focus is on obtaining stake holders satisfaction. The Institute has MoUs with 55 reputed industries for enhanced Industry Institute Interaction.

Some of the award /recognitions/ rankings/during the assessment period are enumerated here under

2017-2018 :-NBA, increase in intake in CSE, Approved R&D Center from VTU, Projects ,Patents and Papers

2018-2019 :-Projects ,Patents, Papers , SAE

2019-2020 : NIRF,ARIIA, SAE, Increase intake in ECE, Projects ,Patents and Papers, SIH, AVISHKAR, e-YANTRA

### Concluding Remarks :

Since Inception, the Institution is marching forward towards excellence in quality in all spheres. Although the Institution was started with UG Programs, presently it contains not only to UG and PG students but also to researchers. Presently UG programs ECE, CSE, ME, ISE, are accredited by NBA (Under Tier II). This reflects the Quality of education being imparted to the students with enhanced research consulting facilities, fund mobilization through research grants have crossed several crores of rupees. Meticulous Planning and executive of activities coerced with effective mentoring provide an excellent support system to the students.

Hassle free environment devoid of Gender bias facilities, the progress of the Institution with its Innovative

methods of teaching, the Institution has devised an effective Teaching Learning process. Empowerment of Faculty through Continue education and creates an environment Conductive to learning. Over the past 9.5 Years, the focus of the institution is on imparting quality Education. Emphasis is an enhancing the employability skills and communicative competence. The Enhanced Industry Institute, Interaction, Feedback from stakeholders led to refinement is the curriculum.

Excellent Team culture and synchronized effects of Human recourse are enhancing the organization to full fill its Glorious vision. Alumni of the Institution Spread across the globe are an added advantage. Maximizing the strength, overcoming the weakness, utilizing the opportunities and facing the challenges, Institution is far surpassing others and could successfully create an image for itself. Distinctiveness of the institution lies in fulfilling its social responsibility. Leadership and Decentralization, well established policies and procedures are the basis for stake holder satisfaction. Transparency is ascertained.

Students of Jyothy Institute of Technology are endowed with an inherent value base and a high sense of social responsibility. This unique quality certainly reflects itself in the sustainable development of the Nation. With NIRF and ARIIA ranking JIT is now in the process of becoming an autonomous (Affiliated to VTU) the institute believes that NAAC certification will be a measure to evaluate and guarantee the standard of education provided at JIT. It is hoped that NAAC accreditation further evaluates the institutional image.