



# **SELF STUDY REPORT**

**FOR**

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

**JYOTHISHMATHI INSTITUTE OF TECHNOLOGY AND  
SCIENCE**

**NUSTULAPUR KARIMNAGAR**

**505481**

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

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**BANGALORE**

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# 1. EXECUTIVE SUMMARY

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## 1.1 INTRODUCTION

Jyothishmathi Institute of Technology & Science, Karimnagar was established in the year 1997 as a self-financing engineering institution by Shalini Vidya Samstha, under the Chairmanship of Sri. Juvvadi Sagar Rao, a philanthropist and great visionary, having vast experience in successfully running the Jyothishmathi Group of Institutions. The institution is approved by All India Council for Technical Education (AICTE), New Delhi and is affiliated to Jawaharlal Nehru Technological University (JNTU), Hyderabad. The institution is situated in a serene and picturesque location in the midst of vast expanse of greenery within an area of 25.31 acres, overlooking the water body of Lower Manair Dam near Karimnagar town. The institution is located adjacent to the Karimnagar-Hyderabad high-way easily accessible by road and is about 7 Kms from Karimnagar Bus-station, and about 150Kms from Hyderabad.

The institution has its vision to impart futuristic technical education and instil high patterns of discipline among students through effective teaching–learning process. The institution shall set global standards, making the students technologically superior and ethically strong. The institution has been the center of excellence in engineering education with an initial intake of 40 in Computer Science and Engineering, intake of 60 each in Electronics and Communication Engineering and Electrical and Electronics Engineering, and has gradually grown into a temple of learning offering 5 UG courses, M.Tech and MBA programmes.

The institution has bagged 5 university gold medals for its academic excellence. The institution believes in providing a platform for students towards enhancing their innovative skills through various programmes. The institution is awarded as “**Best Innovation College**” by Telangana State Innovation Cell, Government of Telangana in Start-up India Telangana yatra 2018.

The institution extends its social responsibility towards eco-friendliness and has shifted from usage of conventional energy to renewable energy by installing solar PV rooftop system in the first phase with the capacity of 100KWp in 2018. In pursuance of students' endeavour, the institution believes in its teaching-learning standards has successfully completed 22 years of academic excellence and is primed to march ahead.

### **Vision**

To be the premier engineering institution imparting quality technical education and research, moulding the young engineers to achieve global excellence with societal consciousness.

### **Mission**

- To embrace the emerging teaching techniques that help students face the technical challenges.
- To inculcate research culture through innovative thinking.
- To induce leadership qualities in students and promote entrepreneurship benevolent to the society.

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

## **Institutional Strength**

The institution promotes the zeal to grow and flourish as a centre of academic excellence. To achieve this objective the Institution evaluates its strength, weakness, opportunities and challenges.

### **Strengths:**

- 1) Visionary and committed management.
- 2) Recognized by UGC under section 2(f) of UGC act 1956.
- 3) Well Qualified, experienced and dedicated faculty.
- 4) Excellent Infrastructure facilities with state of art laboratories, vast library and computer centre.
- 5) Excellent teaching learning practices using innovative methods.
- 6) Promoting E-learning through NPTEL, NDL, Swayam platforms.
- 7) Focus on students' innovative thinking skills.
- 8) Encourage students towards project based learning
- 9) Industry- Institute Interaction- Providing a platform for student's practical training in terms of projects, internship, and placements.
- 10) Functional MOU's with industries for students' training, internships, FDPs etc.
- 11) Effective mentoring system adding value to the students' performance and overall development.
- 12) Student discipline monitored through discipline committee
- 13) Ragging free campus.
- 14) Active student participation in community welfare programmes.
- 15) Democratic governance through decentralization of responsibilities and participative management.

## **Institutional Weakness**

1. Funding for research activities from AICTE, DST and other agencies are not appreciative.
2. Partial participation of alumni.
3. Less number of Ph.D qualified faculties.
4. Limited placement from core companies.
5. Lack of industries nearby.

## **Institutional Opportunity**

1. Expanding e-learning resources to enhance the knowledge of students and faculty.
2. Accreditation and autonomous status from statutory bodies.
3. Establishment of Skill development centers and Centers of Excellence in all departments.
4. Enrichment of research activities at department level.

### **Institutional Challenge**

1. Declination of students' interest towards engineering education.
2. Students hail from rural areas.
3. Retention of senior and experienced faculty.
4. Carrying out interdisciplinary research activities

## **1.3 CRITERIA WISE SUMMARY**

### **Curricular Aspects**

The institution adheres to the curriculum as per the JNTUH university norms. To deliver the curriculum effectively the institution has well defined processes, systems and structures. The College Academic Committee of the institution plays a vital role in designing and monitoring the teaching learning practices.

Adhering to the affiliating university norms the students are provided with a choice based credit system. The institution believes in teaching beyond the syllabus because it strengthens and expands the students' existing knowledge and adds interest towards the course. On par with the recent trends, the teaching learning process is more emphasized with value added courses. Each department identifies the curriculum gaps. To bridge the gap between the curriculum and emerging trends, content beyond the syllabus is taught through seminars, guest lecturers, workshops, industrial visits, internships, VET courses and certification courses. The students are made aware of the cross cutting issues relevant to the current pressing concerns through various courses like Gender Sensitization, Environment Studies, Human values and Professional ethics. Along with these, various professional chapters and student cells like CSI, IEI, ISTE organizes programmes throughout the year.

To understand the stakeholder's opinions and the prospects, the institution has well established feedback and survey system. The feedback collected is analyzed for effective delivery of curriculum.

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

The institution admits the students as per the statutory reservation policies. The institution follows student centric teaching learning process. The most evident feature of teaching learning process is preparation, execution and assessment of academic plan. The entire faculty define CO's of their respective subjects to match the PO's, and PSO's of their programmes. The same is disseminated to all the students. The institution consistently examines the attainment of outcomes and reviews the teaching learning process. The institution adheres to the norms of the university in continuously evaluating the students both in theory and laboratory subjects. Transparency in evaluation process is followed by communicating to the students and displaying the internal assessment marks on the notice boards. Any grievance raised by the student regarding evaluation process is sorted out promptly.

The class in-charge identifies the strengths and weakness of an individual student through classroom interaction. Advanced learners are exposed to modern technologies after class hours. Slow learners are identified and provided with remedial classes. Bridge courses are conducted for newly admitted students. Students are exposed to enhanced teaching learning process through ICT and smart classes. They are encouraged to participate in the research activities, take up additional courses through NPTEL and MOOCs platform. To bring out hidden talents of the students they are encouraged to participate in innovative areas. Students take part in Smart India hackathon, coding contest, national and international paper presentation. Constructive feedback from all stakeholders is considered in all aspects of teaching learning process and corrective measures are initiated.

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

The essential parameter for quality enhancement in the institution is promoting research among students and faculty. The institution actively involves through evolving appropriate policies and practices. Required infrastructure in terms of space and equipment are provided accordingly. Adequate resources are made available encouraging active research involvement of students and faculty in research as well as recognizing any achievement of teachers through research. The management supports the faculty by cash incentives and appreciation. The institution provides an ecosystem in the form of innovation cell in bringing out the creative and innovative talent among the students. The institution organizes various workshops and seminars on Intellectual Property Rights and Industry-academia innovative practices. The students and faculty are encouraged and provided an opportunity to participate in various innovative activities and Hackathons. Our students proved themselves in every competition and brought laurels to the institution. Our institution received the “Best Innovative College in Telangana” award by Telangana State Innovation Cell, Government of Telangana state during the start-up India Telangana Yatra 2018. The institution actively engages the students and faculty in extension activities thereby rendering their services to the society through various community services organized by Jyothishmathi Brigade under NSS. The activities include Blood donation camp, Tree plantation programmes, Road safety awareness programmes etc. Formal agreement is made between the institution and industries, training institutions, corporate companies and government organizations for collaborative endeavours. Training to students and faculty towards exchange of research and teaching resources are encouraged. The students and faculty of the institution strictly adheres to the code of ethics of the institution. The institution received many accolades for its student and faculty participation towards community reach and extension activities.

### **Infrastructure and Learning Resources**

Infrastructure plays a vital role in effective and efficient conduct of education programmes in the institution. The institution provides adequate infrastructure facilities with 37 class rooms, 57 laboratories, 4 well equipped seminar halls, 2 drawing halls, 1 computer center, adequate staff rooms and tutorial rooms. Supportive facilities like indoor, outdoor sports and games, gymnasium, yoga centre, contribute towards co-curricular and extra-curricular activities

To incorporate technology in teaching and learning process, class rooms are equipped with ICT and smart boards. The campus is wi-fi enabled apart from high speed LAN. The central library of the institution has a vast collection of 59723 volumes and 9995 titles, 152 national and international journals and adequate monthly and yearly magazines, projects submitted by the students, newspapers etc are available for all the students and faculty. Students and faculty are provided access to technology aided learning platforms like DELNET, NDL,

NPTEL videos, e-books etc. Remote access to e-resources of the library is provided to the students and faculty.

The institution has a vast network of 706 computers equipped with appropriate software and 80 mbps internet connectivity for conducting university recommended classes. The IT infrastructure is frequently updated to meet the required curriculum and technological advancement.

The institution allocates substantial budget for infrastructure augmentation and maintenance. Maintenance of the infrastructure is equally important for optimum and effective utilization. The institution has a well defined process of maintaining academic and support facilities. The institute allocates appropriate budget for infrastructure augmentation and maintenance.

### **Student Support and Progression**

The students being the main stakeholders of the institution, the management believes in their well being and overall development. The institution provides necessary assistance to the students towards the progression of their career development. The institution works to obtain external scholarships. In addition, the management provides free ships, various cash awards and prizes to encourage the students.

Activities related to capability enhancement and development of students like guidance for competitive examinations, career and personal counselling are carried out in the institution. Soft skill development, certification and VET courses are conducted for students' to develop their technical and interdisciplinary skills. Adequate outdoor and indoor sports and games, yoga and meditation facility is provided to the students.

The institution strongly supports the mechanism for timely redressal of student's grievances. The class representative committee is constituted every year which acts as a bridge between the administration and students community. The representation of the students in academic and administrative committees ensures a culture of transparency and their feedback supports in prospects of the institution. There is a registered Alumni association contributing significantly to the development of the institution through various activities both in financial and non financial aspects. Alumni interacts annually with the students towards career mentoring, invited talks and discussions on recent technological trends, industry requirements, job opportunities in core and allied fields.

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

The governance of the institution is designed around mechanisms to identify and meet the aspirations of all stake holders. Collaborative and consultative approach has been the career stone of governance. The institution has an effective governing body by well defined quality charter consisting of management, Principal, Senior academicians and industry professionals.

The College Academic Committee of the institution is the authority to discuss and monitor the implementations of academics. The CAC directs the various heads of the departments to conduct faculty meetings on academic development and others pertaining to students and submit their inputs on regular basis.

To improve the quality of decision making at the management level and to make academics more effective and efficient practice of decentralization and participative management is encouraged in the institution. The institution has a well structured organogram to facilitate effective administration. The coordinators of

committees and cells work together towards accomplishment of the vision and mission of the organisation. The financial resources of the institution are effectively utilized for teaching learning process and infrastructure development. The institution practices e-governance through implementation of E-CAP automation software. Understanding and appreciating the efforts of the teaching and non-teaching staff, the management recognizes every individual and has high concern of acknowledging their needs and requirements through various welfare measures. To have continuous evaluation of teaching learning process the institution emphasizes on Faculty appraisal. The institution follows a separate mechanism towards non teaching staff. This helps in promoting self discipline, punctuality, etc. Faculty are encouraged and provided with necessary assistance to attend professional development programmes like refresher courses, short term courses FDP's etc, so as to get exposure and upgrade their knowledge. In house professional development and administrative training programmes are organized regularly for teaching and non teaching staff. Quality processes and practices are of utmost important for the successful growth of the institution. The IQAC constituted at the institution formulates, monitors, assists in implementing and evaluating the teaching learning processes. The IQAC contrives efficient and progressive performance of academic, task by optimization and integration of modern methods of teaching learning and evaluation.

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

The institution provides a sensible environment towards gender equality by developing better understanding of important issues, and exposing students to more equalitarian interaction between men and women. The institution provides well structured students counselling committee to help the students to overcome their immediate problems and inspire them for their successful endeavours. The students are provided with appropriate safety measures and common rooms are available for boys and girls separately.

In a step towards environment consciousness and sustainability the institution has shifted from conventional energy to renewable energy source by installing rooftop solar plant with a capacity of 100KWp. The annual power requirement met through LED bulbs is 50%.

The institution adapts necessary measures towards waste management by adopting appropriate policies for solid, liquid and e-waste. Rain water harvesting structures are available in the campus to recharge the ground water.

The institute emphasizes on green practices. The students and faculty constructively work together towards plastic free campus, paperless office, awareness on usage of bicycle, public transport, transforming the campus into green landscape with trees and plants. The institution has high respect towards organizing national festivals, birth/death anniversaries of great Indian personalities in its campus. The students are made aware of the importance of the contribution of our freedom fighters and celebrating national festivals. The institution provides necessary facilities for differently abled students. The institution maintains transparency in academic, financial and administrative functions.

With high respect and acceptance various courses are conducted for promotion of human values and professional ethics among the students. The institutional core values are imbibed among the students and faculty. These core values determine the distinctiveness of the institution, stakeholders' involvement in two way communication that contributes towards overall development of the organisation. The institutional best practices are constituted in pursuit of imparting quality education and providing systematic approach towards inculcating societal consciousness in a disciplined manner.

NAAC



## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	JYOTHISHMATHI INSTITUTE OF TECHNOLOGY AND SCIENCE
Address	NUSTULAPUR KARIMNAGAR
City	KARIMNAGAR
State	Telangana
Pin	505481
Website	<a href="http://www.jits.ac.in">www.jits.ac.in</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	G LAKSHMI NARAYAN A RAO	0878-2223317	8106304455	0878-2253498	principal@jits.ac.in
Professor	A. SUBBARAM I REDDY	0878-2223717	9177332525	-	naac@jits.ac.in

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
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Date of establishment of the college	28-08-1997			
<b>University to which the college is affiliated/ or which governs the college (if it is a constituent college)</b>				
<b>State</b>	<b>University name</b>	<b>Document</b>		
Telangana	Jawaharlal Nehru Technological University	<a href="#">View Document</a>		
<b>Details of UGC recognition</b>				
<b>Under Section</b>	<b>Date</b>	<b>View Document</b>		
2f of UGC	05-07-2018	<a href="#">View Document</a>		
12B of UGC				
<b>Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)</b>				
<b>Statutory Regulatory Authority</b>	<b>Recognition/Approval details Institution/Department programme</b>	<b>Day,Month and year(dd-mm-yyyy)</b>	<b>Validity in months</b>	<b>Remarks</b>
AICTE	<a href="#">View Document</a>	17-05-2019	12	

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

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

<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	NUSTULAPUR KARIMNAGAR	Rural	25.31	21001

## 2.2 ACADEMIC INFORMATION

NAAC

<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	BTech,Computer Science And Engineering	48	Intermediate	English	180	180
UG	BTech,Electronics And Communication Engineering	48	Intermediate	English	180	89
UG	BTech,Electrical And Electronics Engineering	48	Intermediate	English	120	37
UG	BTech,Mechanical Engineering	48	Intermediate	English	120	10
UG	BTech,Civil Engineering	48	Intermediate	English	60	33
PG	Mtech,Computer Science And Engineering	24	B.Tech or B.E in CSE or IT	English	24	12
PG	Mtech,Electronics And Communication Engineering	24	B.Tech or B.E in ECE	English	18	18
PG	MBA,Master Of Business Administration	24	UG	English	60	27

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

<b>Teaching Faculty</b>												
	<b>Professor</b>				<b>Associate Professor</b>				<b>Assistant Professor</b>			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	21				36				98			
Recruited	11	1	0	12	25	6	0	31	61	37	0	98
Yet to Recruit	9				5				0			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				26			
Recruited	0	0	0	0	0	0	0	0	17	9	0	26
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				73
Recruited	59	14	0	73
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				35
Recruited	17	18	0	35
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>
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	11	1	0	4	0	0	0	0	0	16
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	21	6	0	78	46	0	151

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

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
Diploma	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0
UG	Male	170	1	0	0	171
	Female	229	0	0	0	229
	Others	0	0	0	0	0
PG	Male	5	3	0	0	8
	Female	44	5	0	0	49
	Others	0	0	0	0	0



<b>Provide the Following Details of Students admitted to the College During the last four Academic Years</b>					
<b>Programme</b>		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>
SC	Male	18	30	38	33
	Female	28	42	35	32
	Others	0	0	0	0
ST	Male	5	6	6	6
	Female	4	4	1	5
	Others	0	0	0	0
OBC	Male	138	179	174	208
	Female	176	199	190	239
	Others	0	0	0	0
General	Male	23	31	70	60
	Female	80	66	110	127
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
<b>Total</b>		<b>472</b>	<b>557</b>	<b>624</b>	<b>710</b>

### 3. Extended Profile

#### 3.1 Program

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

Response: 454

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

Number of programs offered year-wise for last five years

2018-19	2017-18	2016-17	2015-16	2014-15
08	05	07	08	16

#### 3.2 Students

Number of students year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
1869	2039	2047	2243	2298

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

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

2018-19	2017-18	2016-17	2015-16	2014-15
301	251	286	321	398

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

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

2018-19	2017-18	2016-17	2015-16	2014-15
556	547	503	666	668

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

### 3.3 Teachers

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

2018-19	2017-18	2016-17	2015-16	2014-15
167	163	231	231	239

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

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

2018-19	2017-18	2016-17	2015-16	2014-15
167	163	231	231	239

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

### 3.4 Institution

#### Total number of classrooms and seminar halls

**Response: 41**

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

2018-19	2017-18	2016-17	2015-16	2014-15
395.84	327.99	448.15	210.54	320.89

#### Number of computers

**Response: 706**

## 4. Quality Indicator Framework(QIF)

### Criterion 1 - Curricular Aspects

#### 1.1 Curricular Planning and Implementation

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

##### Response:

The institution has a well structured system of planning and successful execution of the curriculum. The institution being affiliated to JNTUH, strictly adheres to the curriculum prescribed by the university. To ensure effective delivery, the College Academic Committee of the institution formulates an action plan for timely implementation of the university curriculum.

The Department Academic Committee headed by respective HOD's in its meeting discuss on strategies to be implemented in teaching learning process. Conduction of workshops, guest lectures, and certification courses are planned and submitted to IQAC. The same is submitted before the College Academic Committee for approval. IQAC involves in academic planning and continuously monitors the curriculum delivery. To achieve the deserved outcomes, right blend of curriculum, pedagogy and assessment are made at various levels and recommendations are put before College Academic Committee.

The College Academic Committee analyses and recommends different measures like Bridge courses, add on courses, Skill Enhancement Programme and submits for advocacy to the governing body.

The curriculum delivery is carried out using traditional teaching, collaborative teaching, self-learning, and supportive learning methods.

- **Traditional Teaching methods:** It includes preparation of detailed lesson plans, question bank, lab manuals, lecture notes, tutorials and assignments.
- **Collaborative learning:** The institution organizes industrial visits, seminars, workshops and guest lectures to bridge the gap between industry expectation and the institution. Internships and industrial projects are facilitated for the students to get real-time exposure.
- **Self learning:** This practice is introduced to encourage students to utilize all available e-content, library and other academic resources at the institution. Self-directed learning is not solitary, therefore institution encourages peer learning. This helps the students to structure their learning and support the people around them.
- **Supportive learning methods:** The students are categorized as slow and advanced learners based on their academic performance. Slow learners are provided with remedial classes. Advanced learners are motivated towards innovation and research.

Students are exposed to modern teaching methods by using ICT and Smart classes. Various club activities are conducted by all the departments to mould the students in corresponding fields.

Internal and External exams for theory and practical subjects are conducted as per schedule from the affiliated University. To improve the performance of the students, in addition to the JNTUH scheduled Mid Examination and Final Examinations, the institution conducts three class tests and one grand test. For

laboratory courses continuous assessment is done throughout the session by evaluating the experiments performed by each student along with viva voce. Tutorial classes are conducted as per university curriculum.

Each faculty prepares course outcomes, lesson plan, assignment questions and question bank of their teaching subject before the commencement of the semester. The curriculum delivery is done as per the lesson plan. HOD and Principal monitors the syllabus coverage of the faculty ensuring to follow the lesson plan strictly every fortnight. IQAC involves and monitors the quality of teaching and learning process through feedback system from the students and other stake holders in every subject twice in a semester.

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

### 1.1.2 Number of certificate/diploma program introduced during the last five years

**Response:** 57

#### 1.1.2.1 Number of certificate/diploma programs introduced year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
13	13	11	10	10

File Description	Document
Minutes of relevant Academic Council/BOS meetings	<a href="#">View Document</a>
Details of the certificate/Diploma programs	<a href="#">View Document</a>

### 1.1.3 Percentage of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years

**Response:** 8.24

#### 1.1.3.1 Number of teachers participating in various bodies of the Institution, such as BoS and Academic Council year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
04	05	04	03	01

File Description	Document
Details of participation of teachers in various bodies	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 1.2 Academic Flexibility

<b>1.2.1 Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years</b>	
<b>Response:</b> 73.79	
1.2.1.1 How many new courses are introduced within the last five years	
Response: 335	
File Description	Document
Minutes of relevant Academic Council/BOS meetings.	<a href="#">View Document</a>
Details of the new courses introduced	<a href="#">View Document</a>

<b>1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented</b>	
<b>Response:</b> 100	
1.2.2.1 Number of programmes in which CBCS/ Elective course system implemented.	
Response: 8	
File Description	Document
Name of the programs in which CBCS is implemented	<a href="#">View Document</a>

<b>1.2.3 Average percentage of students enrolled in subject related Certificate/ Diploma programs/Add-on programs as against the total number of students during the last five years</b>				
<b>Response:</b> 22.87				
1.2.3.1 Number of students enrolled in subject related Certificate or Diploma or Add-on programs year-wise during the last five years				
2018-19	2017-18	2016-17	2015-16	2014-15
507	554	480	408	423

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

## 1.3 Curriculum Enrichment

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

#### Response:

The institution provides ample opportunities to students by conducting various programmes on the awareness addressing cross-cutting issues related to gender, environment sustainability, human values and professional ethics prescribed as per university curriculum.

#### Gender Sensitization:

The curriculum as defined by JNTUH contains Gender Sensitization in II year, which is mandatory for all branches of engineering. This course deals with both legal and social awareness on women empowerment. The students are developed with the sensibility and the modification of behaviour by elevating awareness on issues of gender. It provides a meaningful perspective on the socialization of men and women and is closely linked to gender empowerment. Awareness on gender sensitization allows the students to become familiar with political and economic debates and think critically about gender-based violence. Equal importance is provided to girl students to participate in curricular and extracurricular activities. The institution has a women protection committee to uphold the dignity of women and deal with the issues pertaining to women. Several activities related to gender are conducted through the staff and student participation. International Women's day is celebrated in the institution every year. Apart from the curriculum, the gender issues are addressed through periodic conduction of guest lectures on gender sensitization. Awareness programmes on SHE-team, seminars on Beti Bachao Beti Padavo, Eve-Teasing, Women empowerment etc. are conducted periodically.

#### Environment and Sustainability:

The curriculum contains Environmental Science and Technology for II year of all the branches of Engineering. The students are subjected to focus on ecological balances for sustainable development and the impacts of development activities and mitigation measures. Through this course the students can understand and evaluate the basis of environmental policies and regulations. Students and faculty actively participate in various programmes like Swachh Bharath, Tree plantation, Clean and Green campaign, Eco-friendly Ganesha etc. Roof top solar power plant of 100kwp is installed in the campus. Rain water harvesting pits are used to recharge the ground water.

#### Human Values & Professional Ethics:

To facilitate the development in a holistic perspective among students towards life, profession, self

realization, human values and accept social responsibilities, a course entitled professional ethics is introduced by JNTUH to III year I Semester students. Along with professional ethics, Intellectual property rights subject is introduced for III year students which make them aware on practice of plagiarism check, maintaining of confidentiality of trade secrets, following ethical norms in patent and trade mark filing. The faculty and students follow the code of conduct of the institution. Code of ethics is followed in the research work carried out by faculty and students of the institution. Workshops and seminars are organized on concepts of intellectual property rights, Cyber laws, Ethical hacking, plagiarism and patent filing. Eminent speakers are invited to address the students about Professional ethics and Human values periodically.

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

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

**Response:** 43

1.3.2.1 Number of value-added courses imparting transferable and life skills offered during the last five years

**Response:** 43

File Description	Document
Details of the value-added courses imparting transferable and life skills	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 1.3.3 Percentage of students undertaking field projects / internships

**Response:** 55.86

1.3.3.1 Number of students undertaking field projects or internships

**Response:** 1044

File Description	Document
List of students enrolled	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 1.4 Feedback System



**1.4.1 Structured feedback received from 1) Students, 2)Teachers, 3)Employers, 4)Alumni and 5)Parents for design and review of syllabus-Semester wise/ year-wise****A.Any 4 of the above****B.Any 3 of the above****C. Any 2 of the above****D. Any 1 of the above****Response:** A.Any 4 of the above

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>
URL for stakeholder feedback report	<a href="#">View Document</a>

**1.4.2 Feedback processes of the institution may be classified as follows:****A. Feedback collected, analysed and action taken and feedback available on website****B. Feedback collected, analysed and action has been taken****C. Feedback collected and analysed****D. Feedback collected****Response:** A. Feedback collected, analysed and action taken and feedback available on website

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>
URL for feedback report	<a href="#">View Document</a>

## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Average percentage of students from other States and Countries during the last five years

**Response:** 3.12

##### 2.1.1.1 Number of students from other states and countries year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
71	79	66	66	41

#### File Description

#### Document

List of students (other states and countries)

[View Document](#)

Institutional data in prescribed format

[View Document](#)

Any additional information

[View Document](#)

#### 2.1.2 Average Enrollment percentage (Average of last five years)

**Response:** 68.5

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

2018-19	2017-18	2016-17	2015-16	2014-15
457	472	557	624	710

##### 2.1.2.2 Number of sanctioned seats year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
804	660	756	852	1056

#### File Description

#### Document

Institutional data in prescribed format

[View Document](#)

Any additional information

[View Document](#)

### 2.1.3 Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years

**Response:** 86.87

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

2018-19	2017-18	2016-17	2015-16	2014-15
211	244	273	304	306

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

## 2.2 Catering to Student Diversity

### 2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners

**Response:**

To measure the performance of individual student and plan future strides for the improvement of teaching learning process, the institution follows a stipulated process of assessment towards learning levels of students.

Assessment helps the faculty to understand where a student exactly stands in the learning progression and paves a path towards academic success. Student assessment is essential to plan further steps for the improvement of teaching learning process and share the information with relevant stakeholders.

#### Identification of Slow and Advanced Learners:

During the initial days of class work, the concerned subject faculty observes the students in terms of academics, attitude, interest, motivation, personality and career aspirations. Based on the interaction with the students, performance of class tests and I mid examination, the students securing less than 60% of marks are identified as slow learners and others as advanced learners.

#### Activities of Advanced learners:

- Students are provided a platform to dig out their hidden talents in innovation. Students enthusiastically participate in innovative activities and come up with various projects.
- Students are encouraged to work on challenging projects useful to the society.
- Students are motivated towards research and to publish papers in reputed journals and paper

presentation in conferences.

- Students are encouraged to undergo certification courses on advanced topics through online courses like SWAYAM, NPTEL.
- Students are encouraged to undergo competitive examination like GATE, GRE, IELTS, CAT, TOEFL and PG CET.

#### Activities of Slow Learners:

- Slow learners are provided with special counselling to motivate them towards better performance by Principal, HOD, coordinator, counsellor and subject faculty as and when required.
- Remedial classes are conducted periodically beyond class work hours by concerned subject faculty with special focus on the process of learning by solving.

Students are motivated to participate in technical events like technical seminars, technical quizzes, paper presentations, group discussions etc at inter and intra college levels.

The organizational skills are developed by assigning various roles like class representatives, co-ordinator for student activities associated with various clubs etc. The leadership qualities and confidence levels are improved among the students.

To motivate the students towards novel innovation, personality development programmes, technical training programmes, technical fests and conferences are organized. Project expo is held periodically in the institution to encourage the students' inherent innovative skills.

Students are encouraged to undergo certificate course and internships at the institution and industry level. Students underwent internships at NTPC, BSNL, BHEL, Kesoram cement, ECIL, etc.

The newly admitted students are provided with 15days Induction program to acquaint them with institution environment and university curriculum. A proficiency test is conducted to I B,Tech students to test their basic problem solving and comprehension skills. Students securing less than 50 % of marks are provided with bridge course scheduled for 20 days beyond class hours. To fill the gap of understanding the engineering concepts the lateral entry students are provided with bridge course for 15 days.

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

#### 2.2.2 Student - Full time teacher ratio

**Response:** 11.19

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

#### 2.2.3 Percentage of differently abled students (Divyangjan) on rolls

<b>Response: 0</b>	
2.2.3.1 Number of differently abled students on rolls	
<b>File Description</b>	<b>Document</b>
Institutional data in prescribed format	<a href="#">View Document</a>
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:

The institution strongly believes in students-centric learning. Student centric learning focuses on individual student's interaction, competencies in learning patterns with teacher as facilitator.

#### Experiential learning:

Students are provided freedom to analyse and explore their ideas through learning by doing. Students acquire the knowledge from direct experience by participating in internships, case study, industrial visit and attending online courses like NPTEL, SWAYAM etc.

The institution offers the students an opportunity to undergo industry oriented mini projects. As per the JNTUH curriculum, students are provided with three hours practical session per week. Students are encouraged to learn the content beyond the curriculum by making them work on additional experiments in laboratories.

#### Participative Learning:

Students are provided a platform to express their skills by participating in group discussions, debates, seminars, quizzes, paper presentations and technical events. In order to inculcate team work, boost their confidence and build leadership qualities they are encouraged to participate in organizing various technical activities.

To get hands on experience on recent technological trends, students are taken on field industrial visits. In addition to regular academic projects the students are encouraged to undertake projects which are helpful to the society.

#### Problem solving Methodologies:

Faculties train the students towards problem solving and guide them in appearing for various competitive examinations. The faculty assigns the students to work on different case studies to hone their problem solving skills. Students are made to participate in group activities where they exchange their ideas through peer learning which in turn helps in problem solving. Tutorial classes are incorporated in time table as per

curriculum which helps the students to work on the problems and assignments to clear the doubts.

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

### 2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

**Response:** 88.02

#### 2.3.2.1 Number of teachers using ICT

Response: 147

File Description	Document
List of teachers (using ICT for teaching)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Provide link for webpage describing the " LMS/ Academic management system"	<a href="#">View Document</a>

### 2.3.3 Ratio of students to mentor for academic and stress related issues

**Response:** 12.71

#### 2.3.3.1 Number of mentors

Response: 147

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

### 2.3.4 Innovation and creativity in teaching-learning

**Response:**

Creativity and Innovation are integral parts in academic discipline. The institution provides cooperative environment towards innovative practice creating interest and enthusiasm among the students. In order to create curiosity and passion among learners, we have the practice of incorporating new methods in teaching learning process.

Innovative techniques in teaching learning process helps the peer group in applying their creative ideas, experimenting in different ways and implementing accordingly. The faculty evaluates and suggests

corrective measures.

The following are some of the teaching techniques that are practiced by every faculty and embrace their teaching methods.

- Incorporation of blooms taxonomy
- Teaching through smart boards
- Usage of Audio-Visual tools, supplementing text books during teaching sessions.
- Brainstorming sessions in classroom.
- Infusing real world experience in teaching
- Role plays
- Group Discussions
- Inquiry Based teaching
- E-learning sessions
- Learning through model making

The following are the facilities available to assist the teaching learning process.

- Classrooms and seminar halls with ICT facilities and smart boards
- Digital Library with e-resources like online lectures, PPT's, NPTEL etc.
- Availability of e-resources on the institution website.
- Laboratories equipped on par with the latest trends in technology.

To equip the teaching community with more creative and innovative methods they are encouraged to participate in various faculty development programmes like Outcome Based Education and other teaching methodologies.

**Innovation cell:** The students are motivated, supported and mentored to identify and develop their innovative ideas through the innovation cell. Robotics, IOT and Embedded systems laboratories are provided to carry out various innovative activities by the students. The students are well groomed to participate in various competitive events such as Project Expos and Hackathons. To encourage their innovative ideas and create an exposure, Project Expos are conducted periodically at the intuition level.

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

## 2.4 Teacher Profile and Quality

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

**Response:** 100



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

#### 2.4.2 Average percentage of full time teachers with Ph.D. during the last five years

**Response:** 5.52

##### 2.4.2.1 Number of full time teachers with Ph.D. year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
16	14	07	07	08

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

#### 2.4.3 Teaching experience per full time teacher in number of years

**Response:** 8.17

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

Response: 1363.66

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

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

**Response:** 0

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



2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

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

#### 2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years

**Response:** 10.88

##### 2.4.5.1 Number of full time teachers from other states year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
21	25	19	19	24

<b>File Description</b>	<b>Document</b>
List of full time teachers from other state and state from which qualifying degree was obtained	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 2.5 Evaluation Process and Reforms

### 2.5.1 Reforms in Continuous Internal Evaluation(CIE) system at the institutional level

**Response:**

The institution follows rules and regulations incorporated by JNTUH in the process of internal evaluation and adhere to the reforms communicated from time to time.

The potential ability of the faculty and students are empowered by internal assessment. The objectives of the internal assessment test include exposure on continuous evaluation, inculcate interest on practice through learning methodologies and assert students to perform consistently.

The academic calendar communicated by JNTUH is incorporated in the institutional academic calendar and is disseminated to all the students at the beginning of the semester.

Students are made aware of the evaluation process in orientation programme and the schedule is displayed in the college and department notice board. The examination branch will coordinate with all the activities

related to the conduction of internal assessment tests Mid-I and Mid-II as per the JNTUH schedule. Question papers for internal assessment are prepared as per Bloom's Taxonomy levels. Two sets of question paper along with answer keys are collected for each course. The evaluated answer scripts are distributed to students by the faculty as per the schedule, and the solutions for questions are discussed in the classroom. In addition to MID Examinations, the institution conducts three class tests and a grand test in every semester.

An assignment is a type of reflective learning activity in which the students' level of understanding is conveyed to the faculty. The assignments are focused on developing writing, interpersonal and collaborative skills of the students. Students are given with an assignment after completion of every unit. Continuous evaluation is carried out in laboratories to assess the performance of the student in learning and executing various experiments. Keeping in view the current scenario it is important that right blend of internal and external assessment reforms are practiced to improve the students' practical knowledge.

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

### 2.5.2 Mechanism of internal assessment is transparent and robust in terms of frequency and variety

#### Response:

The institution believes in maintaining the transparency of internal assessment so as to make the stake holders aware of the progression in all dimensions.

In the well defined process of maintaining internal assessment transparency, the institution adheres to the affiliating university norms. The university communicates examination schedule in its academic calendar. The institution disseminates its internal assessment schedule to students and faculty in the beginning of the semester through institution academic calendar following university calendar.

The university conducts two mid internal examinations and one external examination in a semester. The internal assessment of the students' performance is carried out by assignments, class tests, mid examinations, observations, records, viva voice, seminars etc.

The MID Question paper is prepared as per Blooms Taxonomy levels. The students are made aware of the internal assessment and evaluation process by the respective faculty. The MID assessment question paper comprises of subjective paper (10 marks), objective paper (10 marks) and assignment (5 marks). The mid examinations answer scripts are evaluated with in stipulated time and as per the predefined scheme of evaluation and the marks are displayed on the institution and departmental notice board. In order to maintain transparency, the evaluated scripts are disseminated and key is discussed among the students in the classroom. The students can verify and discrepancies found if any are brought to the notice of the concerned faculty.

The total marks secured by the student in each mid-term examination are evaluated for 25 marks, and the average of the two mid-term examinations shall be taken as the final marks secured by each candidate. The internal and external laboratory examination pattern is discussed among the students in their respective

laboratories. Continuous evaluation in laboratories is carried out by assessing his/her day to day performance in carrying out lab experiments. The other factors include maintenance of observation books, in time submission of records, performance in viva-voce, etc. The students are awarded grades according to their performance after every experiment.

The seminar for IV B Tech II semester students is conducted and evaluated for 50 marks by the department committee. Students are assigned to work on mini and major projects. Mini project is evaluated for 100 marks and major project for 200 marks. The Internal Evaluation shall be on the basis of two seminars given by each student on the topic of his/her project. The department project review committee consisting of HOD and senior faculty along with the project guide monitors the progress of the student's project periodically. The internal evaluation process of laboratories, seminars, industry oriented mini and major project is followed in a specified pattern following rubrics.

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

### **2.5.3 Mechanism to deal with examination related grievances is transparent, time-bound and efficient**

#### **Response:**

Examination is an assessment of the students' performance and the teacher's efforts. The institution follows complete transparency in the internal assessment and supports the student's grievances related to internal and external examinations.

The faculty inform the students about the various components in the assessment process at beginning of the semester. The students are also made aware of raising the grievances if any regarding examination. After the conduction of examination every faculty explains the process of evaluation by discussing the solutions in the classroom. The valued answer scripts are shown to students to verify their answers according to the key provided. Grievances if any are brought to the notice of the faculty and will be resolved in the class room. Any grievance if not solved by the faculty is brought into the notice of the Head of the department. The grievances recorded at the department level are discussed and resolved within 3 days with the consent of the Principal.

#### **For university related grievances**

RC and RV (Recounting and Revaluation)

If students are not satisfied with the marks awarded in the external examination, they can apply for recounting and revaluation within the stipulated time given by the University through the Examination branch of the institution. The result of the recounting and revaluation will be announced by the university.

#### **Challenge Valuation.**

If the student is not satisfied with the result, he or she can also apply for challenge valuation within a week

after the announcement of the results. The institution facilitates and supports the process through the examination branch. The valuation process is carried in the presence of student by two subject experts, one from the institution and other from the university.

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

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

##### Response:

The institution strictly adheres to the academic calendar of the affiliating university and prepares institutional academic calendar and disseminates the same to the students and faculty at the beginning of the semester.

The college academic calendar comprises of various activities to be organized for students like class tests, grand test, etc along with the schedule communicated by the affiliating university. In accordance with the institutional academic calendar all the faculty are instructed to prepare teaching lesson plan incorporating course outcomes of every subject. The implementation of teaching plan is monitored by the concerned head of the department. The IQAC periodically reviews and suggests corrective measures accordingly. Time table is prepared for theory and laboratories and is communicated to students and staff and also displayed on Department and institution notice boards. Regular conduction of class work and laboratory are closely monitored by head of the department and the Principal. The syllabus completion is periodically reviewed by Department Academic Committee, College Academic Committee and corrective measures are implemented to verify that the entire syllabus is completed in the stipulated period as per the affiliating university guidelines.

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

## 2.6 Student Performance and Learning Outcomes

### 2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

##### Response:

All departments have defined their COs, POs, PSOs as per the statutory bodies nomenclature (ABET) and vision, mission of the institution. Each faculty prepares the academic lesson plan adhering to COs, POs, and PSOs of their respective courses at the beginning of the semester and submits to the Department Academic Committee for approval. The DAC discusses in its meeting and approves the proposal put forth by the faculty and the same is reflected in the course files.

The Program specific outcomes (PSOs) and Course outcomes (COs) are displayed on the institution website and communicated to the faculty and students. These are displayed in prominent places of the institution like department and institution notice boards and are made available in course file of faculty.

File Description	Document
COs for all courses (exemplars from Glossary)	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

#### Response:

The course outcomes are written by the respective faculty member using action verbs of learning levels as suggested by Bloom's Taxonomy and as per the JNTUH predefined CO's in the syllabus copy supplied by the University.

A correlation is established between COs and POs, PSOs on the scale of 0 to 3.

0- indicates no correlation

1 indicates a low correlation

2 indicates a medium correlation

3 indicates high correlation

A mapping matrix of COs-POs-PSOs is prepared in this regard for all the courses in the program.

#### The following assessment methods are used for the assessment of Program Outcomes and Program Specific Outcomes:

##### 1. Direct Assessment (70%)

- Assignment
- Class Test/Quiz
- Internal Examination
- Semester end examination

#### This process includes following four components

1. **Assignment (15%):** The students are assigned to solve several problems related to respective courses. The assessment will be done based on their performance in Assignments.
2. **Class Test/Quiz (15%):** Tests / Quizzes are conducted in regular intervals and a Grand Test / Pre-

final Exam constituting the same pattern of University End Semester Examination & Assessment is carried out based on their performance.

3. **Internal Examination (30%):** This type of performance assessment is carried out during the MID Term -Examinations, which are held twice in a semester.
4. **Semester End Examination (40%):** Semester End examination comprising entire syllabus of the course is a measure for assessing whether the entire COs are attained or not.

CO attainment = sum of marks of all students / (No. of students \* maximum marks)

### Attainment Level of COs

Attainment Level	1	2	3
Criteria	If 60% of students' scores more than 50%	If 60% students' scores more than 60%	If 60% students' scores more than 80%

### 2. Indirect Assessment (30%)

#### *Survey reports:*

Indirect assessment strategies may be easily implemented by embedding them in the end-of-course evaluation from Alumni Survey, Employer Survey and Exit Student Survey.

#### *Graduate/Exit Survey:*

The passing out batch of student will give feedback on Teaching Learning parameters adopted during their stay in the college. The questions involved in the feedback process are mapped with PO and PSOs with indication of attainment level.

#### *Alumni Survey:*

After one year of graduation this survey is conducted and will be taken in to consideration.

#### *Employer Survey:*

A feedback on our students' performance level in their work will be collected from various employers & attainment will be calculated

Finally in Evaluating the Program Outcomes, weighted average of the 70% of the Direct Assessment and 30 % of the Indirect Assessment will be taken.

PO Attainment (Direct) = sum of (Ci \* weight) / sum of PO weights

PO attainment = 80% Direct + 20% Indirect

The attainment levels in the range of 1 to 3 are decided by following ways:

#### **Attainment Levels:**

Attainment Level	1	2	3
------------------	---	---	---

Criteria	Less than 60 %	60 % to 69 %	> = 70 %
<b>File Description</b>	<b>Document</b>		
Link for Additional Information	<a href="#">View Document</a>		

### 2.6.3 Average pass percentage of Students

**Response:** 80.33

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

Response: 441

2.6.3.2 Total number of final year students who appeared for the examination conducted by the institution

Response: 549

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



## Criterion 3 - Research, Innovations and Extension

### 3.1 Resource Mobilization for Research

**3.1.1 Grants for research projects sponsored by government/non government sources such as industry ,corporate houses, international bodies, endowment, chairs in the institution during the last five years (INR in Lakhs)**

**Response:** 7.42

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

2018-19	2017-18	2016-17	2015-16	2014-15
2.95	1.5	1.5	1.47	0

File Description	Document
List of project and grant details	<a href="#">View Document</a>
e-copies of the grant award letters for research projects sponsored by non-government	<a href="#">View Document</a>

**3.1.2 Percentage of teachers recognised as research guides at present**

**Response:** 2.4

3.1.2.1 Number of teachers recognised as research guides

Response: 4

**3.1.3 Number of research projects per teacher funded, by government and non-government agencies, during the last five year**

**Response:** 0

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

Response: 5

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

### 3.2 Innovation Ecosystem

**3.2.1 Institution has created an ecosystem for innovations including incubation centre and other**



## **initiatives for creation and transfer of knowledge**

### **Response:**

To explore students' ideas and imbibe the innovation trends in them, the innovation cell is established in the institution.

**Innovation cell:** The institution has an innovation cell for students and faculty to carry out their innovative activities. The innovation cell co-opts the resources from several department laboratories as required by the students from time to time. The institution has established the following laboratories for the purpose of carrying out innovation under innovation cell.

#### **1) Robotic Lab:**

It is an initiative to disseminate education on embedded system and Robotics. The lab provides required infrastructure facilities for both faculty and students to carry out the research on embedded systems and Robotics. Specialized training is provided through TBT (Task Based Training). Some of the activities are

- Arduino based hands-on training
- Training on Functioning and Testing of Electronics components
- Development of applications in Robotics
- Involving students in doing Mini or Major Projects on Robotics
- Training for participation in competitions (e-Yantra, Robo saarang, Project Expo)

#### **2) IOT Lab:**

This lab provides necessary infrastructure support on embedded computing that controls the personal IOT frame work. Some of the activities are

- Arduino and raspberry pi hands-on training
- IDE software training
- Innovative and research projects using IOT
- Project Expo

#### **3) Embedded System Lab:**

The institution also has the following supporting system creating an echo system for innovation in campus and in turn supports the operations in the innovation cell. Some of the activities of the embedded systems lab are

- Software and Hardware training on embedded systems
- Develop embedded system based applications
- Research projects

Research and Development committee, Industry Institute Interaction Cell and Entrepreneurship Development Cell assist in carrying out various activities in research, conducting guest lectures, organizing expert talks from industry etc.

**Research and Development committee:** The Research and Development committee aims to foster and inculcate inter-disciplinary research and innovative thinking. The committee actively works towards identifying and informing the research opportunities announced by different academic, research, government organizations and industry. The committee encourages and facilitates the publication of research work in reputed academic journals.

**Industry Institute Interaction Cell:** The main objective of the cell is to provide exposure to both students and faculty on newer technologies and engineering methodologies. The IIC plays a vital role in bridging gap between academia and industry by conducting various activities like industrial visits, guest lectures and organizing expert talks from industry and alumni.

**Entrepreneurship Development Cell:** Entrepreneurship Development cell is established to develop the students' entrepreneurial skills. The students are provided with enhancement and skill development programmes, guest lectures and seminars to motivate the students towards entrepreneurship.

The following are the few accomplishments of the students:

- The institution received “**Best Innovative College**” award from Telangana State Innovation cell, Government of Telangana in 2018.

A “**Prototype of Pollution Reducing Helmet**” designed by our students was awarded as Top-50 Science models at Indian International Science Festival (IISF) organized by Ministry of Science and Technology, Government of India in 2018.

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

### 3.2.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the last five years

**Response:** 41

3.2.2.1 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
14	9	5	3	10

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

### 3.3 Research Publications and Awards

#### 3.3.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research

**Response:** Yes

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

#### 3.3.2 The institution provides incentives to teachers who receive state, national and international recognition/awards

**Response:** Yes

File Description	Document
e- copies of the letters of awards	<a href="#">View Document</a>

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

**Response:** 0

3.3.3.1 How many Ph.Ds awarded within last five years

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

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>

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

**Response:** 0.56

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

2018-19	2017-18	2016-17	2015-16	2014-15
95	5	6	3	7

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>

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

**Response:** 0.75

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

2018-19	2017-18	2016-17	2015-16	2014-15
95	22	10	12	16

File Description	Document
List books and chapters in 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 in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years

**Response:**

The institution provides formal education as an instrument and renders empathetic approach towards community services. It acts as a platform in quest of fulfilling the students' societal consciousness through helping hands.

The institution strives with the best possible efforts, in bringing about positive social transformation which leads to the socio-cultural environment and spiritual fabric of human community. The NSS unit of the institution actively participated and conducted various social activities under the flag of Jyothishmathi Brigade.

The students with an objective to identify the needs and problems of the community work together on problem solving and practice national integration as social army. Students and faculty participate with utmost gaiety in celebrating national festivals, creating an environment of communal harmony. In addition to this, the students develop a sense of social and civil responsibility and involve themselves in the

following activities.

1. Blood donation camps
2. Awareness programmes on Road safety, Fire safety, Anti-drug, Water conservation, Hawk-eye, Eco-friendly Ganesh etc.
3. Organized Clean and Green initiatives such as “Swach Bharath” and “Tree Plantation” (Haritha Haaram) Programmes.
4. Charity Programmes
  - Distribution of IT amenities, books, clothes and stationary to government school students and orphanages.
  - Distribution of fruits & required amenities to old age homes
  - Active voluntary participation towards relief funds.
  - Community services such as implanting drinking water plant, construction of junction on D.B.O.T (Design Build Operate and Transfer) basis.
  - Education support for vulnerable children in school.

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

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

**Response:** 11

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

2018-19	2017-18	2016-17	2015-16	2014-15
5	2	0	3	1

File Description	Document
Number of awards for extension activities in last 5 years	<a href="#">View Document</a>
e-copy of the award letters	<a href="#">View Document</a>

### 3.4.3 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

**Response: 52**

3.4.3.1 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
14	10	6	14	8

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

**3.4.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years**

**Response: 73.8**

3.4.4.1 Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
1784	1023	1656	1766	1465

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>

### 3.5 Collaboration

**3.5.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc during the last five years**

**Response:** 234

3.5.1.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
140	47	32	9	6

File Description	Document
Number of Collaborative activities for research, faculty etc	<a href="#">View Document</a>
Copies of collaboration	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.5.2 Number of functional MoUs with institutions of National/ International importance, Other Institutions, Industries, Corporate houses etc., during the last five years (only functional MoUs with ongoing activities to be considered)**

**Response:** 14

3.5.2.1 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years (only functional MoUs with ongoing activities to be considered)

2018-19	2017-18	2016-17	2015-16	2014-15
1	1	2	2	8

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	<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>
Any additional information	<a href="#">View Document</a>

## Criterion 4 - Infrastructure and Learning Resources

### 4.1 Physical Facilities

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

**Response:**

The institution has adequate facilities for teaching–learning process viz., classrooms, laboratories, drawing halls, workshops, library, computing facilities etc as per AICTE and JNTUH norms. The college is spread across 25.31 acres with built up area of 21,001 square meters.

**Classrooms:**

The institution has 37 spacious, well equipped and ventilated class rooms each with an area of 69.65sq.m. Out of 37 classrooms, 23 classrooms are ICT enabled, including 9 smart class rooms. All the classrooms are provided with Wi-Fi facility. The institution has well-furnished 16 Tutorial classrooms conducting tutorial classes for the students.

**Drawing Hall:**

The institution has two drawing halls with an area of 139sq.m. each accommodating 60 students with required amenities.

**Laboratories:**

The institution has 58 highly ventilated and well equipped acoustic laboratories with an area of 69.65 each established as per the curriculum specified by the affiliating university.

**Seminar Hall:**

The institution has 01 air conditioned seminar hall with an area of 252 sq.m in addition to 3 other seminar halls with an area of 139 sq.m each. All are equipped with LCD projector, audio and video equipment, computer with internet connectivity and public address system with good acoustics.

**Workshop:**

The institution has a basic workshop with an area of 208 sq.m and an additional workshop with an area of 200 sq.m with sufficient equipment in conducting carpentry, house-wiring and smithing trades as per affiliating University norms.

**Computer Center:**

The institution has a centralized computer center with an area of 150 sq.m. with adequate computing facility, accessible to all students and faculty for teaching-learning, research, development and other academic activities. The center is equipped with 100 computers, 2 printers and internet facility.



**Library:**

Library, the temple of knowledge of the institution spreads over an area of 1028 sq.m with seating capacity of 200 students, houses over 59723 volumes of books, 152 National and International Journals, Technical magazines, PG & UG project reports and Rare books. Reprographic facility is available in the library. The Library is fully automated with open source ILMS software NEW GEN LIB (Ver. 3.0.4).

In addition, digital library facility is available with 30 computers to access the e-learning resources like e-journals, SWAYAM video lectures, e-ShodhSindhu database and NPTEL content to all staff and students from all laboratories and ICT class rooms. Students can access the database in the form of faculty tutorials, video lectures, etc, through college website.

**Computing facility:**

The institution has 706 computers in 2:1 ratio for teaching-learning purpose, exclusively for the use of students. All computers are connected in LAN and have restricted access to internet facility. All requisite software to deliver the curriculum is available in respective departments and laboratories. Total internet bandwidth available in the institution is 80 Mbps.

**Safety and Security:**

The entire campus is under CCTV surveillance for safety purpose.

**Supplementary facility:**

The institution also has the additional facilities such as ATM, canteen, stationary store, medical facility, water plant, solar power plant and backup generator for electricity.

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

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

The institution gives utmost importance to overall development of the students and organizes various sports, games and cultural activities in the campus regularly. To support this, the institution has the following facilities which are kept open beyond the working hours for students and faculty.

**Outdoor Games facilities:**

The campus has huge playground for sports and outdoor games spread over an area of 14,092.74 sq.m. The outdoor games and sports facilities include running track, cricket and football grounds, basketball, sand volley ball, throw ball, badminton courts, kho-kho and kabaddi etc. The students are provided with ample

opportunities to participate in national and international meets.

### **Indoor Games facilities and Gymnasium:**

The institution provides indoor games facilities like chess, carroms and table tennis. Towards physical fitness, well equipped gymnasium with treadmill, exercise cycles, fold down weight bench, dumbbells, weights, skipping ropes, handgrips, yoga mats etc., are available for the faculty and students.

### **Yoga Center:**

The faculty and students can avail the facility of yoga center. Yoga training sessions are organized by a certified yoga trainer and this is also used as meditation center.

### **Cultural Activities:**

The institution believes in all-round development of the students. An active cultural committee is formed at the institution level for the students to take part in extra-curricular activities and promote leadership qualities and team spirit among the students. For cultural activities, an open stage is constructed and sufficient arrangements are made for the audience. Ample opportunities are provided to explore the students' talent by conducting Fresher's day, Department Association activities, Cultural fests, Technical events and College Annual day. During these occasions several technical and non technical competitions are conducted to dig the hidden talents and appreciate them accordingly.

<b>File Description</b>	<b>Document</b>
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**

**Response:** 65.85

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

Response: 27

<b>File Description</b>	<b>Document</b>
Number of classrooms and seminar halls with ICT enabled facilities	<a href="#">View Document</a>
Link for additional information which is optional	<a href="#">View Document</a>

### **4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.**

**Response:** 55.89

4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year-wise during the last five years (INR in Lakhs)

2018-19	2017-18	2016-17	2015-16	2014-15
180	100	130	200	255

File Description	Document
Details of budget allocation, excluding salary during the last five years	<a href="#">View Document</a>
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:

The library of the institution is fully automated in the year 2012 using the open source ILMS software NEW GEN LIB (Ver 3.0.4).

The functional modules of the library management system comprises of cataloging, circulation, acquisition, serial management, OPAC and MIS.

**Catalogue:** This module allows preparing database of books, journals, project reports and magazines available in the library as per title, author, subject, and publisher, type of learning resources and year of acquisition.

**Circulation:** The circulation module is used to track the status of the books issued, returned, renewed and reserved by the faculty and students. This module also deals with weed out process and binding management.

**OPAC:** Access to the e-learning resources and cataloging is provided to the students and faculty through OPAC.

**Digital Library:** It provides access to 1105 e-journals (DELNET), 356(GB) NPTEL video lectures, 966 e-books (JRC database) etc. The students and faculty can access, download and print the open access journals and research papers. They can also follow the online and offline video lectures.

The DELNET database can be accessed within the campus through intranet. The library is equipped with 59723 volumes and 9995 titles, 152 international and national journals, monthly and yearly magazines, projects submitted by students, newspapers, etc., are available for all the students and faculty. The institution has e-Shodhganga and e-ShodhSindhu membership. The learning resources prepared by the faculty in the form of video lectures, PPTs, other lecture notes can be accessed through institution website.

The institution library is a place where multiple teaching learning resources are easily available to enhance and enrich ones knowledge and wisdom.

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

#### 4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resources for library enrichment

##### Response:

##### Collection of Rare books:

Library is a curious amalgam of its collections. Our institution has a very good collection of 32 Rare books, 24 Manuscripts and other forms of knowledge resources which enrich the learning experience. The non-academic books contribute to the overall development of the students and faculty. The special collections in the library are really fortunate as they carry certain prestige and often help to identify the quality inspired personality.

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

#### 4.2.3 Does the institution have the following:

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

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

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

File Description	Document
Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 4.2.4 Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)

**Response:** 12.03

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

2018-19	2017-18	2016-17	2015-16	2014-15
9.71	8.87	9.16	11.56	20.85

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	<a href="#">View Document</a>
Audited statements of accounts	<a href="#">View Document</a>

#### 4.2.5 Availability of remote access to e-resources of the library

**Response:** Yes

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

#### 4.2.6 Percentage per day usage of library by teachers and students

**Response:** 16.26

4.2.6.1 Average number of teachers and students using library per day over last one year

Response: 331

File Description	Document
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 institution nurtures the students to be ever ready with the changing technology. With the advent of new technologies the teaching learning infrastructure is upgraded to meet the curricula needs.

The details of various IT infrastructures and their up gradation are as follows:

- The bandwidth has been progressively increased from 20mbps to 80mbps over the past 5 years to cater to the current scenario in education. Currently we are using 60 Mbps (Reach broadband) and 20 mbps (two- 10 mbps BSNL)
- To provide flexible internet access to student and faculty the entire campus is Wi-Fi enabled.
- The institution provides its students and faculty with well equipped computer laboratories. The number of computer system has been subsequently increased to 706 for exclusive use by the students. Adequate number of printers are available.
- Each computer lab is provided with necessary softwares as per the requirement of the affiliating university and also to support content beyond learning.
- Use of open source software is encouraged and the same is upgraded to newer versions from time to time.
- Various new versions of proprietary softwares such as MS office, mentor graphics, matlab, were procured as per requirement and installed.
- The institution has upgraded to three servers viz: Web application & Domain Controller (DELL: power edge T30 , Intel Xeon E3-1225v5, 16GB, 1TBHDD), NPTEL streaming server (ACER: AT310-Intel Xeon3400series, 8GB, 2TBHDD), Additional Domain Controller(IBM: X3200 M3-Model server, Intel Xeonporu, 8GB, 2TB HDD)
- All the computers are connected to a single LAN.
- Latest antivirus Software is used in the institution for providing a safe environment for digitization. The computers are protected with standard firewall (sophos end point protection antivirus and sophos hardware and software firewall) and kaspersky internet protection (one year licensed limited), Cisco manageable LAN switch.
- The other components such as routers, switches, UPS, headphones, projectors, RAM are purchased periodically according to the needs. Computers were upgraded with 8 GB RAM, to improve the performance

The ICT facility is improved periodically to provide advanced teaching learning environment to the students. Smart classes are established and most of the class rooms are ICT enabled.

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

### 4.3.2 Student - Computer ratio

**Response:** 2.65

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

#### 4.3.3 Available bandwidth of internet connection in the Institution (Lease line)

**>=50 MBPS**

**35-50 MBPS**

**20-35 MBPS**

**5-20 MBPS**

**Response: >=50 MBPS**

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

#### 4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)

**Response: Yes**

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link to photographs	<a href="#">View Document</a>

## 4.4 Maintenance of Campus Infrastructure

#### 4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

**Response: 22.65**

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

2018-19	2017-18	2016-17	2015-16	2014-15
74.73	66.35	65.79	41.01	128.38



File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	<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:**

The institution constitutes a well defined process for the maintenance of its physical equipment, believing that regular maintenance of equipments ensure proper functioning for long period.

The maintenance of physical, academic and support facilities are looked after by a coordinator from administrative wing along with a supervisor. The utilization of physical and academic facilities is taken care by respective section heads. There are standard operating procedures for proper utilization and maintenance of academic and other support facilities. The Standard Operating Procedures for maintaining and utilizing physical, academics and support facilities including Do's and Don'ts in laboratory are included in institutional manual. A snapshot of few facilities are mentioned herewith.

##### **Laboratories:**

The laboratories of the institution are well equipped as per the norms of the affiliating bodies. The maintenance of the lab equipment is a regular practice carried out by the technical staff. In case of any criticality, the technical staff brings it to the notice of concerned head of the department. The head of the department pursues and submits a report endorsed by the Principal to the maintenance coordinator. The maintenance coordinator contacts the service provider and monitors the services to be held at the earliest.

##### **Library:**

The library is well stocked with sufficient number of books, journals and e-resources. The books are procured to facilitate the students as per the syllabus and the regulations of the affiliating university. Each department submits annually the list of required books to the library committee. The committee in its meeting decides the list of books as per the requirements and sends its consent for the approval from principal. The librarian takes care of damaged books. The weed out process in library is carried out on regular basis. The books after prolonged usage are sent for binding and reuse.

##### **Sports and Gym:**

The servicing of gym equipment is looked after by the physical director of the institution. Any maintenance required is reported to the maintenance coordinator, who facilitates service from the concerned service provider with the approval of Principal.

##### **Computing resources:**

The maintenance of computer system and other computing resources are looked after by system



administrators.

**Electrical and Civil works:**

The maintenance works related to power and electrical like AC's UPS, transformers etc are carried out by electricians of the institution. The area executive assistant engineer (TSTRANSCO) is intimated of maintenance requirement of transformer. The maintenance coordinator coordinates with the electricity department. All the civil and miscellaneous maintenance are carried out by plumber, welder and other skilled workers under the supervision of maintenance coordinator.

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

## 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 the last five years

**Response:** 68.16

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

2018-19	2017-18	2016-17	2015-16	2014-15
1290	1353	1388	1529	1596

File Description	Document
Upload self attested letter with the list of students sanctioned scholarships	<a href="#">View Document</a>
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years

**Response:** 17.14

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
319	357	349	382	392

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

#### 5.1.3 Number of capability enhancement and development schemes –

1. For competitive examinations
2. Career counselling
3. Soft skill development
4. Remedial coaching
5. Language lab
6. Bridge courses
7. Yoga and meditation
8. Personal Counselling

A. 7 or more of the above

B. Any 6 of the above

C. Any 5 of the above

D. Any 4 of the above

**Response:** A. 7 or more of the above

File Description	Document
Details of capability enhancement and development schemes	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link to Institutional website	<a href="#">View Document</a>

#### 5.1.4 Average percentage of student benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years

**Response:** 48.78

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

2018-19	2017-18	2016-17	2015-16	2014-15
1045	1110	976	972	977

File Description	Document
Number of students benefited 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 Average percentage of students benefited by Vocational Education and Training (VET) during the last five years****Response:** 17.08

## 5.1.5.1 Number of students attending VET year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
410	387	339	327	307

**File Description****Document**

Details of the students benefited by VET

[View Document](#)

Any additional information

[View Document](#)**5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases****Response:** Yes**File Description****Document**

Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee

[View Document](#)

Details of student grievances including sexual harassment and ragging cases

[View Document](#)**5.2 Student Progression****5.2.1 Average percentage of placement of outgoing students during the last five years****Response:** 62.36

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

2018-19	2017-18	2016-17	2015-16	2014-15
388	386	330	369	337

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

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

**Response:** 8.99

5.2.2.1 Number of outgoing students progressing to higher education

Response: 50

File Description	Document
Upload supporting data for student/alumni	<a href="#">View Document</a>
Details of student progression to higher education	<a href="#">View Document</a>
Any additional information	<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: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

**Response:** 76.52

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

2018-19	2017-18	2016-17	2015-16	2014-15
20	11	4	2	0

5.2.3.2 Number of students who have appeared for the exams year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
22	12	4	2	2

File Description	Document
Upload supporting data for the same	<a href="#">View Document</a>
Number of students qualifying in state/ national/ international level examinations during the last five years	<a href="#">View Document</a>

### 5.3 Student Participation and Activities

5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at national / international level (award for a team event should be counted as one) during the last five years.					
<b>Response: 0</b>					
5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year-wise during the last five years					
2018-19	2017-18	2016-17	2015-16	2014-15	
0	0	0	0	0	
File Description	Document				
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	<a href="#">View Document</a>				

### 5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution

#### Response:

To ensure the productive participation, quality feedback and progress of information to all students, an effective Class Representative Committee is constituted at our institution.

Students as stakeholders participate in several committees that inspect and organize. The Class Representative Committee is re-constituted every year and is chaired by the Principal comprising of one senior faculty as coordinator and class representatives of all the classes of UG & PG programmes. Facilitating the smooth functioning of the institution, the Class Representative Committee acts as a perfect link between the students and the management, the students and the faculty, the students and community and among the students themselves.

The Institution provides ample opportunities to the students to participate in various committees and exhibit their leadership qualities and execution skills. It is evident that students actively participate in

various committees.

### **Class Representative Committee**

The class representatives motivate students to share their ideas, interests, create cooperative learning culture among peer group and support one another. The College Academic Committee and the Department Academic Committee interact with Class Representatives to get a feedback in executing the academic schedule, syllabus coverage, students' activities and other related issues.

### **IQAC**

The student representatives of IQAC seek the feedback regarding improvement of teaching learning processes and submit before IQAC coordinator to incorporate the quality measures.

### **Anti-Ragging committee**

The students assist anti-ragging committee in implementing anti-ragging measures and maintaining ragging free campus.

### **Games and Sports committee**

The institution has constituted Games and Sports committee to encourage the students to organize and participate in various games and sports. The students are motivated to participate at University, State, National and International sports meet.

### **Library Committee**

The Library committee includes student members to get assistance towards procurement of textbooks, journals and other learning materials as per their requirements in the library.

### **Hostel Committee:**

The student members of the hostel committee shall take active interest in general welfare of the students residing in the hostel and assist the wardens in maintaining the living standards.

### **Research and Development Committee:**

The student members provide useful feedback which guides the faculty in promoting research and consultancy activities on various emerging areas. It also helps in drawing action plan for effective interaction in R&D and joint research.

### **Training and Placement Committee:**

The students provide input on the areas of skill improvement to the Training and Placement Committee. The students co-ordinate with the Training and Placement Committee in organizing placement activities in the campus.

### **Innovation cell:**

The students assist Innovation cell to organize various activities in order to promote innovations and to gather likeminded peers.

#### **Transportation Committee:**

The student members of the committee co-ordinate with the transportation in-charge in maintaining discipline while travelling and ensure the timely arrival and departure of busses.

#### **NSS Committee:**

The students help in mobilizing the peers to participate in various community and societal development activities.

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

### **5.3.3 Average number of sports and cultural activities/ competitions organised at the institution level per year**

**Response:** 27.2

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
26	29	26	27	28

<b>File Description</b>	<b>Document</b>
Report of the event	<a href="#">View Document</a>
Number of sports and cultural activities / competitions organised per year	<a href="#">View Document</a>

## **5.4 Alumni Engagement**

**5.4.1 The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years**

**Response:**

To maintain a healthy relation with Alma-mater, the initiation of our registered college Alumni Association



is appreciable. Alumni meet is held once in a year, with twice meeting of executive committee.

The Alumni participate and contribute to the development of the institution. The biggest returns from the alumni are the suggestions and the feedback they provide about the improvement in teaching learning processes. The alumni members are involved to deliver guest lectures and also as resource persons to conduct workshops and seminars on recent trends. They also share their professional experience and motivate the students. They share the current scenario of placements, expectations from industries and potential job opportunities in the emerging areas. Another area of alumni contribution includes donation of water cooler, books to library, motivation lectures, and technical talks. The alumni have contributed Rs. 5, 83,900 over a period of 5 years for utilization towards institutional development.

The Alumni from various parts of the world enthusiastically participate in the alumni meet organized by the college. The alumni maintain a continued bond with the institution and timely support in student progression is highly appreciated. The departments seek the opinions from alumni on various departmental activities.

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

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

? 5 Lakhs

4 Lakhs - 5 Lakhs

3 Lakhs - 4 Lakhs

1 Lakh - 3 Lakhs

**Response:** ? 5 Lakhs

File Description	Document
Any additional information	<a href="#">View Document</a>
Alumni association audited statements	<a href="#">View Document</a>

#### 5.4.3 Number of Alumni Association / Chapters meetings held during the last five years

**Response:** 5

##### 5.4.3.1 Number of Alumni Association /Chapters meetings held year-wise during the last five years

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

File Description	Document
Number of Alumni Association / Chapters meetings conducted during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>

NAAC

## Criterion 6 - Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

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

##### Response:

The institution provides a safe and intellectually challenging environment that empowers students to become innovative thinkers, creative problem solvers and inspired learners through effective governance in tune with the vision and mission.

##### Vision :

To be the premier Engineering Institution imparting quality technical education and research, molding the young engineers to achieve global excellence with societal consciousness.

##### Mission:

- To embrace the emerging teaching techniques that help students face the technical challenges.
- To inculcate research culture through innovative thinking.
- To induce leadership qualities in students and promote entrepreneurship benevolent to the society.

##### Core Values :

- Academic excellence
- Develop ethical professionals
- Technical advancement
- Leadership and Global Competency
- Students' contribution towards Nation development

##### Quality Policy:

The institution brings forth industry-oriented and socially responsible professionals contributing to the nation building by

- Imparting student-centric quality education by adopting advanced teaching learning proficiencies
- Fostering research and propagating the findings for all-round development of the students
- Providing a disciplined and quality environment to all stakeholders
- Maintaining a dynamic equilibrium between academia and industry

The governance of the institution is designed around mechanisms to identify and meet the aspirations of all stake holders. Collaborative and consultative approach has been the corner stone of governance. The institution has an effective governing council governed by well defined quality charter consisting of Management, Principal, Senior academicians, faculty and Industry professionals.

The governing body meeting is convened once in a year. All aspects of academics and non academics are

discussed, planned and decisions are taken to benefit all the stake holders for effective implementation.

The Management, the Director, the Principal, HODs' and the faculty are always ahead in designing proper applications of the quality policy and plans. Principal as the Head of the Institution provides prerequisite leadership to the system.

The College Academic Committee of the institution is the authority to discuss and monitor the implementations in academics. The CAC directs the various heads of the departments to conduct faculty meetings on academic development curricular and co-curricular activities pertaining to students and submit their inputs on regular basis.

Principal guides HOD's, giving responsibilities of implementing innovating teaching learning strategies. The HOD in DAC propagates the faculty to implement and practice the innovative methods to strengthen the teaching learning process. The HOD along with the faculty shoulders the responsibilities of various departments' activities like student learning, research contribution among students and faculty, student and faculty skill development programmes, resource utilization. The DAC conducts periodic reviews and submits the recommendations to the Principal.

The senior faculties are appointed as coordinators in various committees and are delegated complete autonomy in decision making and implementation of the functions. The committees hold periodic meetings and recommendations are submitted to the Principal.

The Principal consolidates and submits the recommendations of DAC and various committee coordinators to the governing body for approval. The governing body supports with constructive suggestions for improvements creating a healthy work culture and ambience.

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

### 6.1.2 The institution practices decentralization and participative management

#### Response:

To improve the quality of decision making at the management level and to make academics more effective and efficient, the practice of decentralization and participative management is encouraged in the institution.

#### Decentralization and Participative Management:

The Principal actively involves in academic and administrative activities keeping in view the decentralization process. The CAC meeting is conducted to disseminate various curricular and co-curricular activities at different levels. The Dean Academics of the institution looks after all the activities pertaining to academics and submits the suggestions to the Principal. The CAC in its meeting decentralizes the work pertaining to academics and non-academics through the formation of various committees.

IQAC involves in academic planning and continuously monitors the curriculum delivery. All the Head of

the Departments and faculty participate enthusiastically in various activities assigned to them. Under the guidance of faculty, the students actively involve themselves in curricular and co-curricular activities of various committees.

In this regard, the practice of decentralization and participative management is thoroughly discussed through a case study in purchase committee. The purchase committee identifies and monitors the purchases of academics and administrative requirements.

### **Case Study: Purchase of Laboratory equipment**

The Institution has various practices which highlight the decentralization and participative management. Out of all such practices, one such practice is the purchasing process of lab equipment, as explained below:

1. Department gives requisition of requirement and suppliers details to the office duly endorsed by the principal.
2. The procurement in-charge collects the quotations from respective suppliers and prepares a comparative statement with the consent of respective department.
3. After verification by office superintendent, the proposal containing requisition and comparative statements is forwarded to purchase committee for approval. The purchase committee recommends the supplier based on their services, technical specification, quality and price of the equipment to the Principal for final approval.
4. Purchase order is prepared by procurement in-charge based on final approval, and photocopy of the same is sent to the accountant and concerned department.
5. On receiving the material, the concerned faculty-in charge verifies the equipment and certifies that the received equipment is in satisfactory condition and report is submitted to the HOD.
6. Respective entries are made in departmental stock register with all details and the invoice is submitted to the procurement in-charge by getting the signature of designated authority.
7. Photocopy of the invoice is maintained in respective departments.
8. Accountant should fill the details in payment register.
9. Administrative officer endorses the payment register for release of payment.
10. Following documents are maintained in the office:

- Requisition from department
- Enquiry for quotations
- Comparative statements with quotations
- Purchase order
- Invoice
- Receipts

The decentralization and participative management is evident by the above practice. The delegation of powers to the purchase committee to select the supplier shows the practice of decentralization and the practice of participative management is evident with the involvement of various functionaries in the above process.

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

## 6.2 Strategy Development and Deployment

### 6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution

#### Response:

To transform the students into successful engineers and entrepreneurs, our institution is passionate to implement our strategic plans which are reviewed regularly to check the practicality and achievements. The detail strategic plan document is available in the institutional website for reference of all stakeholders.

The following are the important components of strategic planning.

- Enhancing the quality of teaching learning practice and infrastructure
- Good governance and administration
- Quality initiatives
- Research, Innovation and Placements
- Serving the society through extension activities and community activities.
- Membership in various professional bodies, student chapters etc.,
- Alumni interaction and outreach activities.

As per the strategic plan we have been successful in achieving the following endeavours.

- ISO 9001:2015 certification
- Installation of Roof Top 100KWp grid connected solar power plant.
- Enhancement of teaching learning infrastructure.
- Establishment of IQAC.
- Appreciative increase in students' participation towards internships and innovation.
- Excellent lush green ambience.
- Societal driven innovative activities by students and faculty.

The strategic plans are disseminated through management and Principal to the concerned stakeholders by conducting regular meetings.

#### **Case Study: *Installation of 100 KWp SOLAR POWER PLANT- A step towards sustainability***

Objective: To minimize the consumption of conventional energy on campus and to harness solar resources as per its strategic plan, a 100KWp solar power plant was installed in the year 2018.

#### **Practice:**

The institution has installed 100KWp roof top solar PV power plant on the roof of its academic buildings in the year 2018 in an area of 1600sq.m at a latitude/longitude of 18° 21' 01" N, 79° 09' 35" E. The solar PV power plant has a total number of 385 modules with each rated power of 260W, 30.7V, 8.52A and has dimensions of 1640\*1000\*34 mm. It has two inverters with 8 and 9 strings respectively with a total capacity of 50KW each. The modules used are of polycrystalline which are tilted at 10°. Each module has an efficiency of 15.85%. The distributed roof top Solar PV power plant is integrated to grid to transfer the excess power back to the TSNPDCL, Telangana.

The established PV power plant in our campus uses highly efficient monocrystalline and polycrystalline cell technology with positive sorting of power classes of 0 to +4.99W and performance stability without Potential Induced Degradation losses (PID losses). It has been established at a total cost of Rs.56 Lakhs.

It has a performance ratio of 76.62% and is expected to produce average annual energy of 1.52 million KWh. The plant provides substantial cost savings on the power consumption for the college. At the same time, it reduces the dependence on foreign oil and fossil fuels with reduction in the emission of the green house gases. It is also a good return on investment for the utility bills with virtually no expenditure for over 25 years.

**Evidences:**

- The solar power plant has generated an output of 1.13 million KWh during the previous year.
- 59.13 % of institution power requirement is met through solar generated units.
- 108.92 ton of CO<sub>2</sub> emission is reduced with the installation of solar power plant.

File Description	Document
Strategic Plan and deployment documents on the website	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**6.2.2 Organizational structure of the institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism**

**Response:**

The institution has a well structured organogram to facilitate effective administration.

The governing body of the institution is the highest authority constituted according to the norms of statutory bodies. It guides, monitors and plays a vital role in decision making of academics and administrative processes of the institution.

College academic committee plans, coordinates, monitors and reviews the curriculum delivery through various teaching learning processes and focuses on performance evaluation of students and faculty. The CAC facilitates events such as faculty development programmes, student induction programmes, workshops, seminars, symposium and cultural activities.

The Principal coordinates and integrates the duties, responsibilities, roles and functions of the Dean, HODs, Sections in charges and Conveners of various committees and cells so as to align them with the institutional objectives and goals more effectively. The institution also has various non-statutory committees to assist the Principal in administration. Occasionally, as and when issues of importance and complexity come up, adhoc committees are formed by the Principal to advice on the resolution of such issues. The Administrative officer of the institution monitors day to day administration and looks after

purchase and maintenance.

The institution has well established rules and procedures with regard to service, recruitment, promotional policies as mentioned in the institution manual.

#### **Grievance redressal mechanism:**

The institution has grievance redressal cell to assist and timely disposal of grievances of various stake holders. This committee is constituted for the overall well being of faculty and students. Any aggrieved faculty or student can launch a complaint with the grievance redressal cell. On receiving the complaint the chairman of the committee calls for a meeting to enquire the complaint, and after giving an opportunity of being heard to the person complained against, takes the appropriate decision. The minutes of the minutes of the meeting are recorded and maintained with the grievance redressal cell.

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

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

- 1.Planning and Development**
- 2.Administration**
- 3.Finance and Accounts**
- 4.Student Admission and Support**
- 5.Examination**

**A. All 5 of the above**

**B. Any 4 of the above**

**C. Any 3 of the above**

**D. Any 2 of the above**

**Response:** A. All 5 of the above

File Description	Document
Screen shots of user interfaces	<a href="#">View Document</a>
ERP Document	<a href="#">View Document</a>
Details of implementation of e-governance in areas of operation Planning and Development,Administration etc	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>



#### 6.2.4 Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions

##### Response:

The Institution constitutes various committees and cells as per the statutory norms and requirements for the progress in academic and administrative operations.

The members of various committees/cells meet as per pre-defined frequency or whenever need arises. They discuss the activities pertaining to their jurisdiction, review of previous activities, prepare the future action plan and submit the same to the Principal in the form of minutes of the meetings. The Principal approves the recommendations and supports the system. The effectiveness of the functioning of the bodies is well evident through the following case study.

##### Case study on Anti-Ragging Committee:

Anti-Ragging Committee is playing a significant role in the institution with the motive of abolishing ragging practices. It keenly observes the students' behavior in the classrooms, corridors, canteen, hostel and parking places in the institution with the support of committee members.

The following are the practices of anti-Ragging committee,

- Meetings are conducted periodically and recommendations are implemented for proper measures against ragging.
- Faculty in the form of squad makes surprise visits in the identified ragging prone areas.
- Creates awareness among the students regarding consequences of ragging and spreading anti-ragging measures.
- Monitors the student's behavior in the institution premises and enforce strict discipline to prevent ragging.
- Floor in-charges are appointed to avoid mass gathering and make the junior students experience a pleasant and interactive climate in the institution.

The anti ragging committee meets before the start of the academic year to deliberate and plan measures for the prevention of ragging in the forthcoming session. The minutes of the meeting are forwarded to the Principal for necessary action. Effective functioning of the Anti-Ragging Committee has not given any scope for any incidents of ragging in the institution and the college stands true to the statement – Ragging free zone.

File Description	Document
Link for Additional Information	<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:**

Understanding and appreciating the efforts of the teaching and non-teaching staff, the management recognizes every individual and has high concern of acknowledging their needs and requirements.

**Common Welfare measures**

1. Subsidized Transport for teaching and nonteaching staff.
2. Free Medical consultancy and treatment for common ailments through the Health Centre.
3. Employee is entitled to get five special leaves with pay in case of his/her marriage.
4. In case of unfortunate demise of concern employee parent, five special leaves with pay will be provided.
5. The Institution provides incentives to the faculty for outstanding performance in the curricular/co-curricular/extra-curricular activities.
6. Salary Advance facility is also provided subject to Management discretion on amount and repayment mode.
7. Vacation leaves provision for all employees as per the college norms.
8. Grant of On-duty when faculties are required to go out on official duties or to participate in conferences, seminars, workshops etc., by prior and proper adjustment of workload.
9. Sick Leaves will be provided based on the request from faculty.
10. Provision for Maternity Leave

**Specific Welfare Measures towards Sub-Staff**

1. EPF is in force to sub staff. EPF is being contributed from management with an equal contribution from employees based on the pay scale governed by EPF rules.
2. Dress Allowance to Sub-Staff

**Specific Welfare measures towards Research, Presentations and Publications**

1. Incentives to faculty who receive State, National and International recognition/awards
2. Provision of Special Leave to the existing faculty for the pursuance of their higher studies like PhD and PDF.
3. Faculties are encouraged to write and publish books or monographs and incentives are provided.
4. Incentives will be given to the faculty member for journal publication.
5. The institution will pay the registration fee, TA & DA and provide OD (On-Duty) for research paper presentation in the conferences.
6. Special incentives for research grants.
7. The faculty will be honored with memento, Appreciation certificate and immediate increments for obtaining of Doctoral and Post Doctoral degree.

File Description	Document
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:** 0

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

**File Description****Document**

Details of teachers provided with financial support to attend conferences,workshops etc during the last five years

[View Document](#)**6.3.3 Average number of professional development /administrative training programs organized by the institution for teaching and non teaching staff during the last five years****Response:** 26.2

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

2018-19	2017-18	2016-17	2015-16	2014-15
34	30	26	24	17

**File Description****Document**

Reports of the Human Resource Development Centres (UGC ASC or other relevant centres).

[View Document](#)

Reports of Academic Staff College or similar centers

[View Document](#)

Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff

[View Document](#)

Any additional information

[View Document](#)**6.3.4 Average percentage of teachers attending professional development programs viz., Orientation**

**Program, Refresher Course, Short Term Course, Faculty Development Program during the last five years****Response:** 54.78

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
138	64	127	83	146

File Description	Document
IQAC report summary	<a href="#">View Document</a>
Details of teachers attending professional development programs during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

To encourage and evaluate the participation in overall developmental activities, the institution has a well structured appraisal system for teaching and Non-teaching staff.

Self appraisal submitted by the teaching faculty is evaluated under the following parameters

- Teaching- learning process
- Research and Development
- Administration of work
- Extension activities.

The HOD collects the feedback from students and forwards it to IQAC. The IQAC consolidates the feedback submitted by different departments and forwards the same to the CAC. The Principal submits recommendations to the Governing body for further consideration.

The faculty appraisal process motivates the faculty towards pursuing higher education, research work and active involvement in the departmental activities of the college. The appraisal system helps in upgrading and brings out the positive changes in the institution by adapting appropriate measures. This also helps in identifying the strengths of the faculty, areas of improvement in quality teaching, leadership qualities and research development.

The performance of the Non-teaching staff is reviewed on the basis of various parameters like quality of work delivered, ability to multitask, discipline, punctuality, behavior, attitude, etc.

The management considers all the parameters in showering increments, awarding promotions and providing other facilities.

File Description	Document
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 institution follows a well defined financial policy for effective and optimal utilization of financial resources for academic and administrative purpose. The budget is prepared well in advanced by taking into consideration the financial requirement of every department. The budget requirements of the respective departments will be prepared annually and submitted before the College Academic Committee. The CAC submits the proposal as per the necessity of the institution to the governing body. The governing body reviews the proposal and acts accordingly. The internal audit is carried out twice in a year by the accounts department of the institution and the statements are reviewed by the management. The external audit is performed annually by Chartered Accountant.

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

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

Response: 70.85

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

2018-19	2017-18	2016-17	2015-16	2014-15
5.75	11	5.35	23.5	25.25

File Description	Document
Details of Funds / Grants received from non-government bodies during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

#### Response:

Funds mobilization and its efficient utilization play a strategic role in smooth functioning of both academic and administrative activities of the institution.

The prime source to pool funds for the institution is the tuition fee from the students. The management is always at the fore front in making available of extra funds if required through the trust (Shalini Vidhya Samstha). The institution continues to monitor the efficient and effective use of available financial resources for infrastructure development and the teaching-learning process. Each rupee spent on development is properly verified by the chartered accountant.

Additional sources of funds are generated from

1. Industries for research projects.
2. Conduct of online examinations for various organizations.
3. Contributions from Individuals and philanthropists for institutional development.
4. Alumni contributions.
5. Interest from banks by effective planning of cash flows.

The institutional strategy for generating funds is mainly based on the quality of teaching learning process and the research environment. By providing quality improvement, the institution can request for a better fee structure that can be sanctioned by the fee regulatory committee and the government.

The institution effectively plans and monitors the optimal utilization of funds and resources.

1. Sufficient funding is allocated for enhancement of teaching-learning practices which includes conducting Faculty Development Programs, Orientation programs, Workshops, Interdisciplinary activities, Training programs to improve quality education.
2. The funds will be used to cover regular operational and administrative expenses and also used in the establishment of advanced laboratories of the institute.
3. Enough funds are allocated to maintain a Green campus and amenities.
4. Sufficient funds are allocated to social service activities as part of social responsibility.



5. Any excess of income over expenditure generated is utilized for infrastructure augmentation.

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

## 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:

The IQAC significantly monitors the quality of teaching learning process. The IQAC works towards internalization and institutionalization of quality enhancement. The IQAC plays a vital role through its intervention strategies assuring the continuous improvement in the operations of the institution.

The following are some of the processes adopted by the institution after the establishment of IQAC in teaching-learning process:

1. Innovation Cell
2. Industry Institute Interaction

#### 1) INNOVATION CELL

##### Objective

- To encourage, inspire and nurture young minds and present themselves with innovative ideas that can be implemented in the interest of our society.
- To provide a platform to the students facilitating with good infrastructure and required training.

The institution strongly believes that education is a blend of academics, innovation, research and co-curricular activities. Innovation cell motivates, supports and mentors the students for identification and development of their innovative ideas. Robotics Laboratory, IOT Lab and Embedded systems lab are provided for carrying out various activities by the students. The innovation center co-opts the resources from several department laboratories as required by the students from time to time. The students are well groomed to participate in various competitive events such as Project Expos, Hackathons etc.

To encourage their innovative ideas and create an exposure, Project Expos are conducted regularly at the institution level.

- The institution has a credit of being honored as “Best Innovative College” by Telangana State Innovation Cell, Government of T.S in 2018-2019.

Student innovations and contributions are appreciated in different areas

- Students bagged First prize for developing an app to promote “organ donation online” during the start up India Telangana Yatra grand finale held at JNTUH Hyderabad 2018.
- “Pollution Reducing Helmet” designed by our students was placed among top 50 science models at the “India International Science Festival-2018” by the Ministry of Science & Technology, Government of India.

## 2) INDUSTRY INSTITUTE INTERACTION CELL

Objective:

- To identify the trends and expectations of Industry and prepare students to meet the latest requirements by facilitating internships
- To establish a platform in enhancing the relationship between the institution and Industries.

Industry Institute Interaction Cell is established to provide closer links with industries. This cell fills the gap between the industry requirement and academia. Invited talks and seminars are organized for the students from industry experts. Industrial visits are organized for the students to bring awareness of industrial processes and work culture. Students are assisted to undergo internships in the industries with the permission of HOD and Principal.

Some of the students are allowed to work on the project in the industries. The IIC creates and maintains a database of the industries providing opportunities to the students in internships and miniprojects.

The IIC activities have resulted in increase in number of MOU’s, internships and industrial visits.

The following table describes number of students participated in Internship and Industrial Visit during the last five years.

Programme	2018-2019	2017-2018	2016-2017	2015-2016	2014-2015
Internships and Field Projects	1044	45	14	4	2
Industrial Visits	185	168	75	70	88

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

### 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

**Response:**

A periodic review is a means of continuous enhancement of the teaching learning process with a holistic view of quality and standards. It is a structured process to reflect on current practices and develop new approaches and to cope up with the challenges.

The Institution with the existence of IQAC conducts the review of teaching learning process, structures and



methodologies of operation in a collegial, constructive and professional process in an atmosphere of support and mutual respect with a focus on enhancement. The IQAC along with College Academic Committee through its periodic review process assures developing a system for conscious, consistent and catalytic action to improve the academic and administrative performance.

### **Strategies of IQAC**

1. To ensure efficient and progressive performance of academic activities.
2. To assure the quality of academic and implementation of modern methods of teaching and learning.
3. To assess the quality of teaching learning process.
4. To assure that the curriculum delivery in tune with academic plan.
5. To bring the reforms in the student evaluation procedures.
6. To support the students through Skill Enhancement Programme.

The following are two examples of institutional reviews and implementation of teaching learning reforms facilitated by IQAC.

#### **1) ACADEMIC AUDIT**

The purpose of the Academic Audit is to evaluate the performance of the departments and appreciate their achievements and give suggestions for further improvement of the quality of teaching, research, administration, and curricular and extra-curricular activities. After visiting the departments, interacting with the HODs/Coordinators, teaching and non-teaching faculty, students and validating the data, the committee would give valuable suggestions on the following points.

1. Course files, lab manual.
2. Infrastructural facilities available for carrying out academic and administrative activities.
3. Innovation and creativity in teaching learning process.
4. Assessment of faculty performance.
5. Faculty development programmes.
6. Research facilities and Research output in the form of publications and patents.
7. Training programmes for students.
8. Monitoring Students' attendance.
9. Performance of students in Internal and external examinations.
10. Co-curricular / extra – curricular activities.
11. Future plans of the department.

During the visit to the departments, the HODs will make a brief presentation about the department on all aspects to the Academic Audit committee. The faculty interacts with the committee and brief about the innovative methods adopted in teaching and research, and efforts taken for improving the quality. The IQAC coordinator reviews all the department audit statements and send to the principal for necessary action. Based on the report of internal academic audit the courses of action/measures being followed are reviewed and suitable remedial measures are taken.

#### **2) STUDENT FEEDBACK**

Feedback plays a vital role in effective teaching learning process. Faculty evaluation is a process of collecting and analyzing the information to assess towards teaching practice periodically. Although there

are various methods of teachers' evaluation, student's feedback is considered as the most effective and reliable method albeit a controversial one.

#### **OBJECTIVE:**

The institution aims to improve the quality of teaching by introducing students' feedback. Student's feedback is an effective tool for faculty evaluation resulting in faculty development.

#### **CONTEXT:**

Feedback is ultimate tool to enhance and appreciate the academic standards of teachers. Based on the feedback, teachers are informed about their strengths and weaknesses in a confidential manner.

#### **PRACTICE:**

The students are made aware of feedback proforma in a brief session. The student feedback is periodically collected on the pedagogy and instruction. The feedback form has a well defined set of parameters that assists the students to evaluate the teaching dimensions of the faculty based on their lecture delivery, and expound how far the teacher has triumph in reaching out to the students. All the students from each and every class and section are expected to provide the feedback for all faculty concerned of their classes. The student's identities are not disclosed. A uniform opportunity is provided to teachers for 3 months to improve their teaching skills. At the end of the semester, the feedback is again collected from the students to assess the effectiveness of academic delivery.

Every faculty is shared with the feedback that enables them to improve their teaching process. The feedback given by the students on faculty is collected by HODs of various departments and submitted to IQAC. The IQAC consolidates and submits the recommendations to CAC. The CAC reviews the recommendations submitted by the IQAC and suggests appropriate measures to improve the teaching learning process.

#### **Evidence of success:**

The feedback resulted in improvement of the quality of teaching among the faculty as per ever changing students' learning processes.

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

### **6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year**

**Response:** 10.2

6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
19	18	7	4	3

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
IQAC link	<a href="#">View Document</a>

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

1. Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements
2. Academic Administrative Audit (AAA) and initiation of follow up action
3. Participation in NIRF
4. ISO Certification
5. NBA or any other quality audit

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

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

File Description	Document
e-copies of the accreditations and certifications	<a href="#">View Document</a>
Details of Quality assurance initiatives of the institution	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Annual reports of institution	<a href="#">View Document</a>

#### 6.5.5 Incremental improvements made during the preceding five years (*in case of first cycle*) Post accreditation quality initiatives (*second and subsequent cycles*)

**Response:**

To achieve a broader approach towards education, the institution readily accepts the required changes to stand on par with the changing trends in all areas. Incremental infusion of academic and administrative activities among the students improves the coordination, capabilities and strengthens the accomplishments of the institution.

The following are the positive improvements of the Institution.

**Teaching, Learning and Evaluation**

1. Faculty and Students are utilizing the NPTEL lectures and e-resources.
2. Eminent senior faculty is appointed to hold key positions.
3. Academic Awards and prizes are distributed to the deserving students.
4. Establishment of IQAC.
5. Productive use of digital library.
6. Periodic visit of reputed academicians and renowned industry personnel.
7. Increased industry institute interaction.

**Research and Development**

1. Progressive increase of research proposal submissions to funding bodies.
2. Incremental growth in publications of faculty in peer reviewed journals with good impact factor.
3. Appreciative students' publications in peer reviewed journals.
4. Numerous workshops, Seminars, Training sessions and FDPs are conducted.
5. Students achieved success in various technical events and state level Hackathon.
6. Students won state first prize in Telangana State Smart city Hackathon 2018.

**Recognition of the institution**

1. Institution is conferred with UGC 2(f).
2. ISO 9001:2015 certification.
3. NPTEL local chapter recognition.
4. Venue partner for Startup India Telangana Yatra 2018.
5. Establishment of student chapters and memberships in professional bodies like CSI and IE.
6. Accolade from Telangana State Innovation Cell, Government of Telangana as "Best Innovative College" 2018.

**Infrastructure and Learning Resources**

1. The internet bandwidth is gradually increased to 80 MBPS to satisfy the current demands.
2. The entire campus is Wi-Fi enabled.
3. Implementation of ICT and smart class rooms.
4. Acquisition of softwares as per the requirement of updated syllabi.
5. Implementation of ERP software-E-CAP.
6. Installation of 100KW Solar Power Plant in the year 2018.

### **Training and Placement Resources**

1. Progressive increase of student's placements in service and core companies every year.
2. Implementation of Skill Enhancement Program (SEP).
3. Progress increase in Industry Institute interactions.
4. 14 functional MOUs with industries.
5. Infosys campus connected partner.
6. Collaboration with SWECHA technology centre.
7. Numerous training programmes are conducted on latest technologies and personality development in association with TASK (Telangana Academy for Skill and Knowledge).
8. Increase in Internships.

NAAC

## Criterion 7 - Institutional Values and Best Practices

### 7.1 Institutional Values and Social Responsibilities

#### 7.1.1 Number of gender equity promotion programs organized by the institution during the last five years

**Response:** 24

##### 7.1.1.1 Number of gender equity promotion programs organized by the institution year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
9	7	3	3	2

#### File Description

#### Document

Report of the event

[View Document](#)

List of gender equity promotion programs organized by the institution

[View Document](#)

#### 7.1.2

##### 1. Institution shows gender sensitivity in providing facilities such as:

1. Safety and Security
2. Counselling
3. Common Room

**Response:**

The Institution provides a sensible environment towards gender equality by developing better understanding of important issues, and exposing students to more equalitarian interaction between men and women.

To develop a sense of comfort to students in all walks of life, the institution provides the following facilities.

##### Safety and Security:

The institution is secured with CCTV surveillance for better supervision at all prominent places such as main gate, parking lots, entrance, canteen, boys' and girls' hostels, corridors etc. Security services are provided 24X7 in the campus.

Facility of complaint box is available at all the possible areas in the institution for the students to drop their grievances and suggestions.

If a student wishes to leave the campus in any unavoidable circumstances, the faculty permits the student when he/she submits a request with reasons and is further ensured by speaking to their parents/guardian. Awareness programmes on safety and security are organized in association with police department. Students are made aware of SHE teams who are available 24 X 7 to act on any crime related to female students. Students are also made aware of Hawk Eye, a mobile app for alerting police in case of any serious problem.

Hostel students are provided with stipulated timings for visitors. The appointed wardens take care of all requirements, problems, rules, regulations and guide the students accordingly.

### **Student Counselling:**

The students hail from different background and culture having different societal and financial intricacies. Sometimes students are constrained to experience stress and depression through which they may take hasty decisions like harming self or others, being to themselves, brooding, discontinuing their academics, etc. To triumph over such cases the institution has a proper counselling system to address in academics, personal and career related issues. Each faculty is attached with 15 students to conduct one-to-one counselling, assuring privacy of the student. Counselling is being conducted by professional counsellor in extreme cases. Students are motivated to be good human being by counselling them on social and ethical aspects.

### **Common room**

The institution has spacious ventilated and airy common rooms for both Boys and Girls. There are 4 common rooms for girls with seating capacity of 300 each and 2 common rooms for boys with the capacity of 150 each. The common rooms are provided with the facilities such as drinking water, hand wash basin, first aid boxes, chairs, tables, wash rooms and necessary amenities. Girls' common rooms and Boys common rooms are monitored by respective senior faculty.

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

### **7.1.3 Alternate Energy initiatives such as:**

#### **1. Percentage of annual power requirement of the Institution met by the renewable energy sources**

**Response:** 59.13

#### 7.1.3.1 Annual power requirement met by the renewable energy sources (in KWH)

Response: 113886

#### 7.1.3.2 Total annual power requirement (in KWH)

Response: 192587

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

#### 7.1.4 Percentage of annual lighting power requirements met through LED bulbs

**Response:** 49.86

7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

Response: 7.2

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 14.44

File Description	Document
Details of lighting power requirements met through LED bulbs	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 7.1.5 Waste Management steps including:

- Solid waste management
- Liquid waste management
- E-waste management

**Response:**

The institution administers a practice of pollution free environment through the following practices.

##### **Solid waste management:**

The degradable and non-degradable waste is collected in separate bins that are placed at appropriate locations in the campus. Some of the common solid waste includes leftover food, plastic bottles, papers, used out pens, wrappers, dry leaves, twigs etc. The institution believes in the policy of 3R's (Reduce–Reuse–Recycle). The institution makes the students aware of 3R's concept through seminars, guest lecturers and other awareness programmes. The solid degradable waste is collected from various locations and is dumped into earth pits to form compost. This compost is used for plants in gardening process. Non degradable waste is collected and disposed to vendors.

##### **E-waste management:**

E-waste is a form of discarded surplus; absolute broken electrical or electronic devices that are complex in



nature are collected from every department and disposed to the local vendors periodically. The obsolete computer spare parts, switches and hubs are used for demonstration purpose in practical sessions.

### Liquid waste management

Liquid waste from the toilets, common rooms, canteen, mess and other places of the college are properly pipelined and connected to a common drainage system. The waste water from RO water plant and water coolers are used for recharging of ground water and gardening respectively. The hazardous waste from chemistry lab is neutralized before disposal.

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

### 7.1.6 Rain water harvesting structures and utilization in the campus

#### Response:

Population growth, expansion of industries and agricultural practices has high demand of water. Monsoon is the only hope of water source which meets the above necessities.

In the process of practicing harvesting system, the rain water is collected from multiple points in the campus representing a major sustainability of the environment in the institution. Rainwater harvesting structures are available in the campus to recharge the groundwater. Recharge pits are laid at specific locations. The institution has 3 recharge pits with capacity of 17,000 litres, 25,000 litres and 1, 44,000 litres respectively. The rain water is channelized towards recharge pits to recharge the ground water level. Large extent of open land helps in percolation of rain water into the ground. Awareness programmes on water conservation are conducted to the students and faculty.

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

### 7.1.7 Green Practices

- **Students, staff using**
  - a) **Bicycles**
  - b) **Public Transport**
  - c) **Pedestrian friendly roads**
- **Plastic-free campus**
- **Paperless office**
- **Green landscaping with trees and plants**

#### Response:

The institution strongly believes and educates its students, the friendly practices towards sustainable development and eco-friendly culture.

**1) Bicycles:**

In order to promote health consciousness, usage of bicycles are encouraged among students and staff which are economical and pollution free.

**2) Public Transport:**

To reduce air pollution caused by individual vehicles, the institution encourages mass transport system. There are adequate RTC busses connecting major parts of the city to the institution. And also institution has its own transport system where fleet of buses ply over various places not only in the city but also to nearby villages.

**3) Pedestrian friendly roads:**

The students and faculty are using pedestrian friendly roads inside the campus and vehicles are parked at requisite parking lots.

**4) Plastic-free campus:**

Plastic is a harmful substance for plant, animal and human life. It is non-biodegradable, lasts for long years creating massive issues in the environment. In this regard the students and faculty are made aware of avoiding plastic in the institution premises. Appropriate signage creating awareness against the use of plastic are placed at prominent places in the campus.

The students actively participated in anti-plastic awareness programmes in the campus and conducted plastic free campaign in the nearby villages. The institution is proud to raise a flag towards plastic free campus.

**5) Paperless office:**

The institution has made a practice of reducing the use of paper. The formal communication is made through e-mails. The Institution uses E-CAP automation software for all academic, administrative and financial activities.

**6) Green Landscaping with Trees and Plants:**

The institution puts vigorous efforts towards increasing the green cover in the campus. The institution has lush, green sprawling neat and clean landscape covering an area of over 5500 sq.m. There are around 1200 trees and plants which includes ornamental and flowering plants.

**Efforts for Carbon Neutrality:**

The institution creates awareness among its students and faculty on conservation of environment. “Haritha Haaram” Tree plantation programme initiated by government of Telangana is organized every year in the campus. Reduction of electrical usage is achieved by substituting renewable sources of energy. The

institution has implemented the usage of LED lights (50%) to reduce usage of conventional energy. Solar plant of 100KWp is installed in the institution as a step towards sustainability.

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

### 7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years

**Response:** 1.05

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component year-wise during the last five years(INR in Lakhs)

2018-19	2017-18	2016-17	2015-16	2014-15
3.26	3.30	4.23	2.82	3.68

File Description	Document
Details of expenditure on green initiatives and waste management during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:

1. Physical facilities
2. Provision for lift
3. Ramp / Rails
4. Braille Software/facilities
5. Rest Rooms
6. Scribes for examination
7. Special skill development for differently abled students
8. Any other similar facility (Specify)

A. 7 and more of the above

B. At least 6 of the above

C. At least 4 of the above

D. At least 2 of the above

**Response:** A. 7 and more of the above

File Description	Document
Resources available in the institution for Divyangjan	<a href="#">View Document</a>
link to photos and videos of facilities for Divyangjan	<a href="#">View Document</a>

### 7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years

**Response:** 24

7.1.10.1 Number of specific initiatives to address locational advantages and disadvantages year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
7	5	4	4	4

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)

**Response:** 18

7.1.11.1 Number of initiatives taken to engage with and contribute to local community year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
6	4	3	3	2

File Description	Document
Report of the event	<a href="#">View Document</a>

**7.1.12**

**Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff**

**Response:** Yes

File Description	Document
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	<a href="#">View Document</a>

**7.1.13 Display of core values in the institution and on its website**

**Response:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
Provide URL of website that displays core values	<a href="#">View Document</a>

**7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations**

**Response:** Yes

File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**7.1.15 The institution offers a course on Human Values and professional ethics**

**Response:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
Provide link to Courses on Human Values and professional ethics on Institutional website	<a href="#">View Document</a>

**7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions****Response:** Yes

File Description	Document
Provide URL of supporting documents to prove institution functions as per professional code	<a href="#">View Document</a>

**7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years****Response:** 29

7.1.17.1 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
8	7	6	4	4

File Description	Document
List of activities conducted for promotion of universal values	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**7.1.18 Institution organizes national festivals and birth / death anniversaries of the great Indian personalities****Response:**

The institution has high respect towards organizing national festivals, birth and death anniversaries of great Indian personalities in its campus. The students commemorate the contribution of our freedom fighters by celebrating national festivals.

Inspiring leaders are always honoured with the glimpses of reminiscence by celebrating their birth and death anniversaries every year. Invited talks and various events are organized to commemorate the memories that pave the way to the aspirations of every student and faculty.

National festivals like Independence Day and Republic Day are celebrated with utmost interest and respect which reflects patriotism among the students. The deeds and sacrifices of national leaders are recollected by celebrating Gandhi Jayanthi and Ambedkar Jayanthi.

Conscious of spirituality plays a vital role in one's life. In deep admiration of Swami Vivekananda, "National youth day" is celebrated on 12th January every year.

In reverence with the contribution of great personalities, students and faculty celebrate the birth anniversaries with utmost respect and gaiety. "National Science Day" on 28th February in the name of great Indian physicist Sir. C.V. Raman, "Mathematics Day" on 22nd December in memory of Indian Mathematician Sri Srinivasa Ramanujan, "Engineers Day" on 15th September in remembrance of Indian civil engineer Sri. Mokshagundam Vishveshwarayya, "Teacher's Day" 05th September in reminiscence of the noble teacher Sri. Sarvepalli Radhakrishna, 15th October "Worlds' Student Day" reminds us the legendary missile man Dr.APJ Abdul Kalam.

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

#### **7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions**

##### **Response:**

The institution believes in transparency which is a bond of trust built among the stakeholders. Transparency helps in autonomy which improves overall efficacy of the institution.

##### **1) Financial Transparency:**

The institution maintains Financial Transparency by making the majority of monetary transactions through electronic mode or through cheques. The salaries of the faculty are remitted through bank every month. The fee structure of the institution is displayed on the website for the information of all stakeholders, to ensure transparency.

The External auditor conducts entire financial audit every year. The institution follows predefined process of inviting quotations from different sources for purchase of all equipments and necessary amenities. A comparative statement of quotations is prepared by the office-in-charge and submitted before purchase committee. The purchase committee recommends the supplier and submits for approval before the Principal.

##### **2) Academics:**

Academic Transparency improves the teaching learning processes. The PEO's, PO's, PSO's, CO's and Session Plans are disseminated to the students and placed in the Institution website. The attendance of the students is displayed in respective departmental notice boards. The parents are informed about their ward's attendance through SMS. The students are notified with the examination time table in notice boards and

through circulars on website. The marks of all internal assessments are displayed on notice boards and students are provided an opportunity to view their answer sheets and claim the discrepancies if any. The students can login through e-cap to view their academic details. The parents are provided with an opportunity to monitor the progress of their wards through e-cap login.

### 3) Administration:

The institution follows a pattern of administration which increases the accountability. The institution framed stipulated rules and regulations towards the services and conduct of the faculty are made available on institution website. The hierarchy of the institution is portrayed in the website. The courses offered by the institution along with its fee structure are notified in the website.

### 4).Auxiliary Functions:

All the information regarding library, hostels, games and sports are notified in the website.

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

## 7.2 Best Practices

### 7.2.1 Describe at least two institutional best practices (as per NAAC Format)

#### Response:

#### 7.2.1.1 Best Practice 1      Societal Consciousness

#### 7.2.1.2 Objectives:

- To develop an attitude among the students in understanding their interests and abilities towards societal development.
- To sensitize the students towards environment protection and involve the students in turning the campus into green model in accomplishment with vision of the Institution.

#### Context:

- In the cut throat competitive global scenario, there is a paradigm shift with every one, leading life away from humanitarian concern.
- The institution takes the responsibility of igniting the social consciousness, leadership qualities, participative growth, empathy, accountability and professionalism among the students.
- Conservation of nature has become a challenge and green cover is depleting day by day

#### Practice:

- The practice of societal consciousness among the students is followed from the inception of the



institution. This phenomenon gradually became a regular practice transforming the students and faculty from awareness to an action.

- The students are provided with a broader objective of societal concern and conceptual understanding. The students and faculty are encouraged to participate in various activities like Antidrug campaign, Road safety, Anti plastic awareness, Voter enrolment awareness, Programme on digital payment etc.
- Various initiatives are taken to donate note books, stationary and clothing to orphan children, computers, refrigerators to the government school students. Periodical visit to old age homes providing necessary commodities accordingly. Concern towards specially abled children was exhibited by donating smart TV, clothes, note books, stationary and other utility items to “Manovikas School”- a school for specially abled children, at Karimnagar.
- To stand true to the statement “Action Speaks More than Words” the students and faculty of the institution voluntarily participate in Blood Donation camps at regular intervals.
- The institution promotes practices to understand the moral values that guide the engineering profession, the social and cultural constraints pertaining to gender in the society, minimizing the efforts of disaster and developing an attitude of concern for the environment among the students and faculty.
- Students and faculty join their hands voluntarily and stand supportive with a service motto to help the disaster affected people and provide them the required relief.
- The institution has installed 100 KWP roof top Solar Power plant through which 59.13 % of energy requirement is met.
- LED bulbs are used for lighting to reduce 50% of conventional energy.
- Practice of presenting plants and sapling at various college events is followed in the institution.
- Students regularly participate in Swacha Bharath Abhiyaan and Tree Plantation drives.
- There are large numbers of trees, ornamental plants, flowering plants and lush green sprawling lawns which help in reducing the air pollution thereby improving the quality of air.
- Rain water is harvested through pits for recharging ground water levels. The institution has 3 recharge pits with capacity of 17,000 litres, 25,000 litres and 1,44,000 litres respectively at appropriate locations.
- Separate bins are placed at the campus for collecting bio-degradable and non- biodegradable waste which are disposed and recycled in safe manner.
- Compost is prepared and used for gardening.
- Conservation of power is practiced by switching off fans and lights when not in use.

#### **Evidences:**

- The intensity of participation of students and faculty towards societal concern had increased tremendously.
- With the zeal of being at the service of the society, the proud students of our institution developed an application of “Connecting organ donors to receptors via government”, and this was awarded a cash prize of Rs 50,000/- by Telangana State Innovation cell organized by Startup India Telangana Yatra in coordination with Telangana State council of Higher Education (TSCHE).
- Received an appreciation for establishing e-classroom, providing writing pads and pens to the X standard students from Head master Saphthagiri Colony Government School, and St.Anns high school, Karimnagar.
- Received loads of admirations for voluntary blood donation camps by the students at our institution at periodic intervals from Red Cross society and Prathima Institute of Medical Sciences.
- In-depth of thankfulness from Sarpanch, Gram Panchayat, Thimmapur for contributing and

constructing water plant to quench the thirst of commuters on Rajiv Rahadari Road in Rama Krishna colony, Thimmapur.

- Memorandum of agreement for construction and maintenance of junctions between institution and the municipal corporation Karimnagar on Design–Build–Operate and Transfer (DBOT) basis at Indira chowk, Karimnagar.
- A testimony of contribution towards disaster relief fund.
- 59.13 % of institution's power requirement is met through solar energy.
- 50 % of conventional energy is saved by the usage of LED bulbs.

### **Challenges:**

- Inherent challenges in the location
- Lack of awareness on social issues among the villagers, who are more hesitant to accept the new initiatives for which we are unable to conduct many more activities across the villages.
- Students are proactive in participating towards societal concerned activities but are unable to spend more time in understanding the problems prevailing in the community due to their academic schedule of the affiliated university.

### **Best Practices-2                      Skill Enhancement Programme**

**Title:** Skill based development programme to cope up with Industry demands.

### **Objective:**

- To prepare and adapt the real work experiences by identifying the core-competencies, build confidence to develop right attitude and improve the employability skills, the students are equipped with special training on Skills Enhancement.

### **Context:**

In the changing global scenario the industry demands highly skilled, flexible, creative, and good communication skills among the students. As the students hail from rural background, skill enhancement programme is incorporated in the institution to improve students' soft skills and technical skills.

### **Practice:**

- The well structured skill enhancement programme of the institution ushers the students to acquire knowledge, skills, aptitude, attitude, competitive and communication skills to meet the requirements of the industry.
- The students are nurtured in the areas of
  - Career mapping
  - Personal Effectiveness
  - Quantitative aptitude and logical reasoning
  - Effective communication and interpersonal skills
  - Leadership Competencies
  - Technical skills

- To empower the students with communication skills (verbal & written), team spirit, problem solving, self motivation, leadership qualities, presentations skills, and interview skills etc., the students are provided with “Skill Enhancement Programme” every semester.
- “Skill Enhancement Programme” is incorporated in timetable and is made mandatory for all the students.
- Training and Placement cell actively engages itself in carrying out the awareness and training activities for students throughout the year.
- Faculties from respective departments are the active members who motivate the students and act as support system in making the student core competent and self motivated. Students are made aware with the recent technological trends, job opportunities, changing expectancies of the employee through awareness programmes, workshops and Guest lectures.
- Students are educated to undergo the SWOT analysis to identify their strengths, weakness, opportunities and threats and are trained to overcome their challenges and improve confidence levels.
- Faculty paves a niche in students’ career development. It is imperative for educators to upgrade their skills and knowledge through FDPs, Train the Trainer Programmes and various training session to address the skill gap among the students.
- Students are encouraged to register for Telangana Academy for Skill and Knowledge (TASK), an organization that provides training on latest technology, personal and organizational skills along with job opportunities.

### Challenges

To adapt to the rapid change in technology is the primary challenge for the young technocrats.

- Limited number of Industries nearby.

### Evidence of Success:

The institution is proud in assisting more than 65% of students every year to secure jobs in various government organizations, MNC’s, reputed private organizations and abroad. Our Alumni hold key positions in their respective domains.

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

## 7.3 Institutional Distinctiveness

**7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust**

**Response:**

**Objective:**

Institution believes that academic excellence is the only development of student's intellectual capabilities and skills in service to humanity along with making of good grades.

**Context:**

The institution with a vision to impart quality technical education and mould young technocrats towards global excellence and societal transformation nourishes its students through effective teaching learning process, innovative thinking and community reach.

**Practice:**

The institution with foresight of improving the students' in all dimensions follows modern methods of teaching apart from the traditional chalk and talk method. In teaching learning process each student is provided with a blend of concepts and practices with modern infrastructure facilities in a zestful environment. The students are taught through a transformative intellectual faculty with a cavernous practical knowledge. Effective teaching learning process includes interacting with learners, working towards their goals by incorporating knowledge, behaviour and contemporary skills.

The syllabus prescribed by the university is delivered to the students to its fullest by the above methods. Advanced learners are encouraged and facilitated by the faculty to learn innovative topics. Slow learners are provided with remedial classes and more practice sessions. Apart from the university internal and external theory and laboratory examinations, the institution has a practice of conducting class tests and a grand test to make the student more practical and be more confident in writing their university end examinations. To have one to one interaction among the students and faculty, tutorial classes are conducted in an effective manner.

The Department Academic Committee, IQAC and College Academic Committee continuously monitor all the academic activities from time to time and appropriate measures are suggested to strengthen academic delivery.

Along with focus on academic grades the students are exposed to lifelong learning skills which help them to excel in all spheres of life. The institution provides ample opportunities to its students to improve life skills and academic development. Content beyond syllabus is practiced through seminars, workshops, guest lectures, paper presentations, internships and industrial visits. In order to catch up with the advancement in technology and bring out the hidden talents from the students, the innovation cell facilitates a platform to promote active learning. The benefits include creative skills to tackle real world problems, contribute actively to group based work and learn from their peers in group based task. Students are provided with interactive learning environment through usage of ICT and smart classes. The students are provided with access to e-content resources of the library. The students are motivated towards research through project based learning. The students' chapters and department associations offer a vibrant space for the students to work on their interest beyond the classroom.

The institution has a well defined process to horn aptitude, communication, entrepreneurial, technical and soft skills to the students through Skill Enhancement Programme. The students are trained to be more confident to tackle real world problems. To develop technical skills and improve the core competencies among the students, each department conducts various certification and training programmes. The students are provided with certifications courses and VET courses for better learning. Project based learning is encouraged to develop the students' inherent creative and technical skills.

The institution believes that discipline is the life and sole of every individual. The discipline committee ensures that the students adhere to the code of conduct and mould them into responsible citizens.

Students mentoring system of the institution guide and counsel the students in academics and non-academics including personal domain to achieve their best in life. In addition, the mentoring system aims at addressing the deficiencies in attitudes, habits and knowledge of the students towards learning.

Being conscious towards community reach and environment protection, is also a part of students academic excellence. The institution having gratitude towards society encourages the students to carry out beneficial acts in neighbourhood communities.

The institution has paved its way to success by incorporating a proper blend of academics (Teaching and learning), life skills programmes, discipline, mentoring system and societal concern to transform the students into successful individuals.

The institutional distinctiveness in imparting quality education and success is reflected through the following achievements.

- Students bagged University Gold Medals form JNTUH, Hyderabad
  - P. Sahiti (2013-2015), Pranavi Kumari (2009-2013), K Ekambereshwar Swamy (2009-2013), K Ganga Reddy (1999-2003), J. Praveen Rao (2001-2005).
- 75% of the students get through in academics in First Division.
- The Institution has a credit of being honoured as “Best Innovative College” by Telangana State Innovation Cell, Government of Telangana.
- The Institution is successful in placing an average of 300 students every year. Most of our alumni are placed in key positions in Government organizations, MNC’s, reputed private organizations and abroad.
- The institution received “Outstanding service award” Gold category in recognition of voluntary contribution for the empowerment of persons with visual challenges by Indian Association for the blind.
- Recent students’ innovations and contributions are appreciated in different areas.
  - Students’ bagged First prize for an app developed to promote “Organ donation online” during the start up India Telangana Yatra grand finale held at JNTU Hyderabad.
  - “Pollution Reducing Helmet” designed by our students was placed among top 50 science models at the India International Science Festival (IISF) 2018, Lucknow, organized by Ministry of Science and Technology, Government of India.
  - College Team Secured First Position in “Hackathon League Competition” organized by J-Hub of JNTUH, Kondagattu, Jan-2019.
  - Students Bagged FIRST PRIZE for the project on” Detecting Breast Cancer” at Computer Society of India (CSI) Colloquium, organized by SNN College of Engineering Chennai-March 2019.

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

NAAC

## 5. CONCLUSION

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### Additional Information :

Following are some of the achievements of the institution in nutshell.

- ISO 9001:2015 certification.
- NPTEL local chapter recognition.
- Venue partner for Startup India Telangana Yatra 2018.
- Establishment of student chapter and memberships in professional bodies like CSI and IE.
- Received “Brainfeed Higher Education-2019” award for implementing innovative methods in teaching and learning in the 7th national conference of brainfeed higher education held in Hitex, Hyderabad.
- Organized Two days International conference on Cutting Edge Technologies in Computing and communications (ICCETCC’19) on 3rd-4th April 2019.
- Students bagged University Gold Medals from JNTUH, Hyderabad. P.Sahiti (2013-2015), Pranavi Kumari (2009-2013), K.Ekambereshwar Swamy (2009-2013), K Ganga Reddy (1999-2003), J Praveen Rao (2001-2005).
- “Pollution Reducing Helmet” designed by our students was placed among top 50 science models at the India International Science Festival (IISF) 2018, Lucknow, organized by Ministry of Science and Technology, Government of India.
- Students bagged First prize for developing an app to promote “organ donation online” during the start up India Telangana Yatra grand finale held at JNTUH Hyderabad 2018.
- Students achieved success in various technical events and state level Hackathon.
- Students won state first prize in Telangana State Smart city Hackathon 2018.
- Recognized as member institution by Oracle academy.
- Recognized as Advanced Partner College by Campus Connect.
- 20 Faculty were certified in NPTEL Outcome Based Education.
- Adequate Indoor and Outdoor Games and Sports facility for Staff and Students.
- Installation of 100 KWp roof top solar power plant.

### Concluding Remarks :

Jyothishmathi Institute of Technology and Science strongly believe in providing quality technical education to the students of rural areas. The institution has clear objectives with well defined Vision and Mission. Since its inception the institution has strived to provide discipline and quality education. Good Infrastructure, Academics, Research and extracurricular has been the prime focus of the institution. To be on par with recent trends, the institution upgrades its facilities, processes and practices. The teaching learning process aims at nurturing the students towards developing creative skills, critical thinking, innovation and excellence. The institution follows the best practices for the benefit of students towards quality teaching learning process, environment sustainability and societal consciousness. Jyothishmathi has been a Temple of Learning striving towards the students’ overall development and marching ahead for nation development. Proactive and generous management, devoted and committed staff, studious students and encouraging parents have contributed towards the development of the institution over the last two decades.