

**Internal Quality Assurance Cell (IQAC)
Submission of
Annual Quality Assurance Report (AQAR)**

by

Tirumala Engineering College
(Affiliated College)

Academic Year-2017-2018

(Revised as per Revised Accreditation Framework in November, 2017)



Tirumala Engineering College
Accredited by NAAC & NBA

(Approved by AICTE, New Delhi & Affiliated to JNTU, Kakinada)
Jonnalagadda, Narasaraopet, Guntur Dist. – 522601
Web: www.tmecnrt.org Email: tecnrt@gmail.com



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission
P. O. Box. No. 1075, Opp: NLSIU, Nagarbhavi, Bengaluru - 560 072 India

The Annual Quality Assurance Report (AQAR) of the IQAC
(Affiliated College)

For the year 2017-18

Institutions Accredited by NAAC need to submit an Annual self-reviewed progress report i.e. Annual Quality Assurance Report (AQAR) to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the IQAC at the beginning of the Academic year. *The AQAR period would be the Academic Year. (For example, July 1, 2017 to June 30, 2018)*

Part – A

Data of the Institution

(data may be captured from IIQA)

1. Name of the Institution : **TIRUMALA ENGINEERING COLLEGE**
 - Name of the Head of the institution : **Dr. Y.V.NARAYANA, M.E, Ph.D.**
 - Designation : **Principal**
 - Does the institution function from own campus : **YES**
 - Phone no./Alternate phone no. : **9440453866**
 - Mobile no. : **9248752999**
 - Registered e-mail : **tecnrt@gmail.com**
 - Alternate e-mail : **narayana_yv@yahoo.com**
 - Address : **Jonnalagadda (V)**
 - City/Town : **Narasaraopet**
 - State/UT : **Andhra pradesh**
 - Pin Code : **522601**
2. Institutional status:
 - Affiliated / Constituent : **Affiliated**
 - Type of Institution: Co-education/Men/Women : **Co-Education**
 - Location : Rural/Semi-urban/Urban : **Rural**
 - Financial Status: Grants-in aid/ UGC 2f and 12 (B)/ Self financing (please specify) : **Self financing**
 - Name of the Affiliating University : **JNTUK,KAKINADA**
 - Name of the IQAC Co-ordinator : **Mr. SK. Abdul Kalam**
 - Phone no. : **08647-218221,219083**
 - Alternate phone no. : **08647-218164**
 - Mobile : **8143414849**

- IQAC e-mail address : iqactec@gmail.com
- Alternate Email address : narayana_yv@yahoo.com

3. Website address : www.tecnrt.org

Web-link of the AQAR: (Previous Academic Year): : NA [Accredited in the month of Nov 2016]

4. Whether Academic Calendar prepared during the year? **Yes**

Yes/No....., if yes, whether it is uploaded in the Institutional website:

Weblink: <http://www.tecnrt.org/calendar.pdf>

5. Accreditation Details:

Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1 st	B	2.43	2016	from: 5.11.2016 to: 4.11.2021
2 nd				from: to:
3 rd				from: to:
4 th				from: to:
5 th				from: to:

6. Date of Establishment of IQAC:

DD/MM/YYYY: **15.3.2016**

7. Internal Quality Assurance System

Title o f the quality initiative by IQAC	Date & duration	Number of participants/beneficiaries
IQAC Meeting	15.05.2017 (1 day)	25
Orientation Programme for administrative staff on “Methods & Innovative Process for Better Administration”	03.05.2017- 04.05.2017 2 days	50
Refresher Course for Teaching Faculty on “Teaching Learning and Evaluation”	17.05.2017- 20.05.2017 3 days	200
Awareness programme for students on “Training & Employment”	24.05.2017 1 day	300
Dissemination of information to students like summer, Refresher Course, Hackathon, workshop etc.,	21.02.2018 - 30.03.2018 40 days	250
Students Participating in the Project contest	College Sponsor 01.03.2018 1 day	120

Title o f the quality initiative by IQAC	Date & duration	Number of participants/beneficiaries
Academic Audit	2 audits per Semester	114
ISO Up gradation Check	26 th & 27 th March 2018 2 days	114
NBA Work	25-04-2018 - 29.04.2018 5 Days	1. Civil Engineering 2. Computer Science and Engineering 3. Electronics and Communication Engineering 4. Electrical and Electronics Engineering 5. Mechanical Engineering
Skill Development Programs	2.05.2018- 7.05.2018 5 days	Students from Internal and outside of various colleges 300

Note: Some Quality Assurance initiatives of the institution are:
(Indicative list)

- Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback from all stakeholders collected, analysed and used for improvements
- Academic Administrative Audit (AAA) conducted and its follow up action
- Participation in NIRF
- ISO Certification
- NBA etc.
- Any other Quality Audit

8. Provide the list of funds by Central/ State Government-

UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/ Department/Faculty	Scheme	Funding agency	Year of award with duration	Amount
-----No Funding-----				

9. Whether composition of IQAC as per latest NAAC guidelines: Yes/No : **Yes**

*upload latest notification of formation of IQAC :

<http://www.tecnrt.org/iqacomposition.php>

Composition of IQAC.

Sl.No	Name of the Faculty	Department	IQAC
1	Dr. Y. V. Narayana	Principal, TEC	Chairperson
2	Sri. R. Satyanarayana	Management	Member
3	Mr. SK. Abdul Kalam	Coordinator- Accreditation	Coordinator
4	Dr. B. Bhanu Prakash	Professor & HOD, CSE	Member
5	Dr. P. Suresh Babu	Professor & HOD, ECE	Member
6	DR. V. V. Kondaiah	Professor & HOD, MECH	Member
7	Dr. N. Srinivasarao	Professor & HOD, AS&H	Member
8	Mr. SK. Abdul Kalam	Assoc. Professor & HOD, EEE	Member
9	Mr. SK. Musthafa	Assoc. Professor & HOD, CIVIL	Member
10	Mr. M. Srikanth	HOD, TPO	Member
11	Mr. M. Srinivasa Rao	Administrative officer	Member
12	Ms. Suneetha	Librarian	Member
13	Mr. Sk. Jakeer	I/C Examcell	Member
14	Mr. V. Hanumantharao	Physical Director	Member
15	Dr. G. Srinivasarao	Assoc. Professor, AS&H	Member
16	Dr. T. Kiran Kumar	Asst. Professor, AS&H	Member
17	T. Nagababu	Assoc. Professor, CSE	Member
18	Mr. M. Srikanth Yadav	Assoc. Professor, CSE	Member
19	Mr. G. Sambasiva Rao	Assoc. Professor, ECE	Member
20	Mr. V. Srikanth	Assoc. Professor, ECE	Member
21	Mr. Ch. Rajini Kumar	Assoc. Professor, MECH	Member
22	Mr. G. V. P. Anjaneyulu	Assoc. Professor, EEE	Member
23	Mr. G. Gurunath	Asst. Professor, AS&H	Member
24	Mr. B. Praveen Kumar	Asst. Professor, CIVIL	Member
25	Mrs. Gayathri, ECE	Student	Member
26	Mr. N. Vijay Bargav	Student	Member
27	Mr. D. Pavan Kumar	Alumini	Member
28	Mr. A. Navyasai sri	Alumini	Member
29	Mr. Phani	Employee	Member
30	Mr. B. Srinivas rao	Industrialist	Member

10. No. of IQAC meetings held during the year : **3**

The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website..... Yes/No : **YES**

(Please upload, minutes of meetings and action taken report)

- <http://www.tecnrt.org/IQAC meetings/2017-18/M1.docx>
- <http://www.tecnrt.org/IQAC meetings/2017-18/M2.docx>
- <http://www.tecnrt.org/IQAC meetings/2017-18/M3.docx>

11. Whether IQAC received funding from any of the funding agency to support its Activities during the year? **No**

If yes, mention the amount: Year: **NIL**

12. Significant contributions made by IQAC during the current year (maximum five bullets)

- IQAC working continuously and streamlines all departments to prepare qualitative & quantitative data.
- Department shall have a Quality Cell for continuously evaluating quality process and updating information and also supplying the same to IQAC at the central level. The Quality Cell at the departmental level shall prepare the roadmap of qualitative teaching and Research.
- IQAC shall develop a Performa for academic audit and Annual Performance Appraisal Report for teachers. Academic audit will be conducted twice in a year at the end of the every semester
- Developed a mechanism of felicitating and rewarding the best teacher and the best researcher based on inputs gathered from IQAC. To meet industry standards, IQAC has initiated skill development programs and Training in basic fundamental of coding skills like C,C++, and java in addition to value added courses.
- IQAC has given instructions to organize students level and as well as faculty level workshops in every department to know the present technology leading the world.

13. Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year

Starting of the every academic year , the various committees and faculty coordinators were proposed by IQAC cell and then finalized by chairperson of the IQAC CELL. So that the activities of the new academic session can be planned in advance. These coordinators provide inputs relating to different activities on the basis of past experience. On the basis of these inputs, the Director of Institution (Also Chairperson of IQAC) prepares the institution's academic curricular plan. Then the annual calendar (events/activities to watch) and the academic calendar, spells out time bound targets which are set on the basis of its perspective plan given by the University. These calendar acts as the plan of action that is used for monitoring actual performance at the institutional level.

Plan of action	Achievements/outcomes
1) Evaluating quality of curriculum and research	Adding of MOOCS course and New Teaching Methods , the quality of Curriculum has improved drastically Most of the faculty members has joined in Ph.D. Programs in various universities and they have published good number of Journals related to research
2) Student Pass Percentage	IQAC has given target results of 75% in the respective meetings and Institution has received aggregate percentage of 82% among all colleges in Narasaraopet region. Arranged necessary remedial classes for the slow learners to improve the Results
3). Placement Record	Nearly 250 students are placed in various MNC's companies like Code Mantra, Wipro, TCS, sonata

	software's etc and 50 students are doing internships likes, Industries, software etc .
4).Organisation of Workshops / Conferences/Seminars	IQAC have given clear instructions to organize Certification courses/workshops and conferences in each department to enrich the knowledge in present trends. All departments has conducted workshops and seminars in latest technologies like cloud computing, Machine learning with artificial Intelligence etc.
5). Establishment of Skill Development centre	To enhance the knowledge of present trends skill development centre was established in the campus and it has given many training programs in association with AP Govt. and got “CM'S Skill Development Programme “ for our campus
6) New PG Programs	It is under process and may be expect after NBA Accreditation.
7) Guest lectures / invited lectures	IQAC has invited prominent personalities form academic as well as industry to give lectures in various topics like IOT,5G Technology, Coding skills, Signals and System, Finite Element, Embedded Systems etc.
8) Learning management Systems and Content Management system	The Institution has provided learning Resources in the respective departments and Central Library. Every department has introduced MOOCS and value added Course apart from academic syllabus like Machine Learning Techniques with AI for CSE Branch, Signal Processing for ECE Etc.
9) Academic competence	Few Departments has started coaching in GATE/GRE/NET/SLET as well as aptitude Training to promote Higher education.. Nearly 60 students got ranks and they have joined in PG programs and Ph.D. In India and Foreign Universities

14. Whether the AQAR was placed before statutory body? Yes /No:

YES

Name of the Statutory body: **Management, IQAC Cell Members,
Governing Council Body**

Date of meeting(s):

1. IQAC cell Members: 11.12.2018
2. Management: 14.12.2018
3. Governing Council: 12.12.2018

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning? Yes/No: Yes Date: 27.01. 2017 to 29.01.2017
Other accredited body: NBA

16. Whether institutional data submitted to AISHE: Yes/No: YES
Year: 2017-2018 Date of Submission: **31-01-2018**

17. Does the Institution have Management Information System? YES
Yes / No

If yes, give a brief description and a list of modules currently operational.
(Maximum 500 words)

Yes, the Institution has Management Information System-E-Cap 2017-2018

A management information system (MIS) is a computerized database of all information organized and programmed in such a way that it produces regular reports on operations for every level of **management** in a Institute..The MIS is designed to provide inputs to the Management on key parameters on areal time basis. The information provided will help in monitoring and decisions making by the management and head of the Institution. The MIS collects data with regard to curriculum, academic programs, research activities etc from the department and units , which is analysed , and presented through statistical tools .The information generated can be shared with the Mgt through IQAC

The completed modules are

- Students Attendance – Daily, Weekly, Monthly and consolidated reports
- Faculty Lesson Plan and Notes of lesson
- Faculty Profile : Basic and Additional
- Mentor allocation and Counselling
- Hostel Attendance
- Course entry, Subject allocation and Time table
- Students Profile
- Institution test : Result Analysis and Comparative Analysis
- University Result Analysis
- Online Feedback
- Department event details entry
- User creation, User management and user right settings
- Auto mail generation
- SMS
- Students Progress report generation
- Payroll (HR department)

Currently working on:

- Accounts
- Billing
- Stock
- Inventory
- Online Exam
- Placement
- Security Monitoring

Part-B

CRITERION I – CURRICULAR ASPECTS

1.1 Curriculum Planning and Implementation

1.1.1 Institution has the mechanism for well planned curriculum delivery and documentation. Explain in 500 words

Depending on our resource potentiality, institutional goals and concern towards the students, we impart quality policies and Education. The institution has developed a structured and effective implementation of the curriculum.

❖ **Following are the various means through which it executives the curriculum.**

HOD's Meeting: HOD's Meetings are held once in 15 days. Head of the Department discuss their action plans to arrive an optimal and effective way.

Academic Calendar: Academic Calendar is prepared as per the guidelines of the University academic schedule and the requirements at the department level as per the action plans formed.

Time Table: Time Tables has been prepared strictly in accordance with guidelines of IQAC and University curriculum. The time table and faculty load maintained strictly as per the University credits. Value addition activities are also included in the time table to benefit the students in their career opportunities. Time table is also communicated to all students by pasting it on the Notice Boards/ERP and also communicated through CR and by posting on social media.

Lesson Plan: A Lesson plan can be prepared as the instructions of IQAC which includes course outcomes, course objectives, content topics, reference books and the expected outcomes from the students by learning through the topics prepared by respective faculty members at the beginning of each semester. It gives an insight how the lecture class will be handled throughout the semester.

Meeting the Vision and Mission of the Concerned Department: Each department sets their own Vision and Mission which match with the Institutional Vision and Mission. Program Educational Objectives (PEO) and Program Outcomes (PO) are developed for each program and Course Objectives (CO) and course outcomes are defined for each course (theory and lab).

Communication of Vision and Mission: Our Vision / Mission well communicated to all stakeholders. The College Vision, Mission, Objectives are communicated through the following. • In College Web site <http://www.tecnrt.org> • In College Magazines • Display boards • Admission Brochure

Class work: class work has started as per the academic institute calendar and all will follow the annual calendar.

Tests: Internal tests and model practical exams are conducted to evaluate the performance of students

Project-based learning: During the period of study in the III year II semester and IV year II semester, many real time projects are given to the students and they are guided by both faculty and Industry/Research personnel. During the period of study in the 6th to 8th semester, many real time projects are given to the students and they are guided by both faculty and Industry/Research personnel.

Special Classes: The slow learners will be identified in every department and it will take initiation to give special coaching classes in various subjects to improve their performance. Soft skill training and value added course are the additional efforts to impart the contents beyond syllabi. Technical Quizzes are also conducted during Technical activity period.

SMART class Rooms: Faculties are using SMART class room to interactive session. Projector is used for demonstration, video (NPTEL), audio of classes.

- **E-Learning/ICT:** Efforts are made to maximize the use of Modern resources and aid to improve the teaching in the class rooms. The students are also encouraged to use computer software packages for their projects.

- NPTEL lectures, MIT Lectures
- E-Journals(DELNET)
- Faculty utilizes online resource course material of different International and National Universities.
- The departments conduct paper contest, poster presentation, and technical exhibition etc. under departmental association.

1.1.2 Certificate/ Diploma Courses introduced during the Academic year

Name of the Certificate Course	Name of the Diploma Courses	Date of introduction and duration	focus on employability/ entrepreneurship	Skill development
Department of Computer Science and Engineering				
IOT	--	8 WEEKS	Employability	Steadily cities are deploying sensors in streetlights, in water and waste systems, and to measure air quality and manage mobility. These very real breakthroughs provide tangible examples of the more foreboding-sounding Internet of Things (IoT)
Cloud Computing	-	8 WEEKS	Employability	This will help students (both UG and PG levels) and researchers to use and explore the cloud computing platforms and services.
Machine Learning Techniques with Artificial Intelligence	-	8 WEEKS	Employability	Students can able to learn different Machine learning Techniques using AI techniques
Introduction to Mobile Application Development	-	8 WEEKS	Employability	This certificate course will help to the students those who are completed ,they can able to prepare Mobile apps for android operating system
Design and analysis of algorithm	-	8 WEEKS	Employability	Sorting and search, Algorithms on graphs: exploration, connectivity, shortest paths, directed acyclic graphs, spanning trees.
Information security - Hacker Tools, Techniques, Exploits, and Incident Handling	-	8 WEEKS	Employability	After completion of this course Information Security refers to the processes and methodologies which are designed and implemented to protect print, electronic, or any other form of confidential, private and sensitive information or data from unauthorized access, use, misuse, disclosure,

				destruction, modification, or disruption.
Real time operating system & scheduling algorithms	-	8 WEEKS	Employability	Gain Knowledge in Operating system concepts. An RTOS that can usually or generally meet a deadline is a soft real-time OS, but if it can meet a deadline deterministically it is a hard real-time OS. An RTOS has an advanced algorithm for scheduling.
Department of Electronics and Communication Engineering				
IoT	--	3 MONTHS	Employability	Gain knowledge about internet of things and different modules. After completion of the course he/she will be able to design sensors and its corresponding algorithms
Embedded systems	--	3 MONTHS	Employability	Designing of embedded systems and understanding the modules.
Electronics hackathon	--	3 MONTHS	Employability	Designing of small modules and circuits.
Department of Electrical and Electronics Engineering				
PLC & SCADA programming with hands on experience	-	2WEEKS	Employability	To understand the importance of PLC Programming in day-to-day Automation industries Gain Knowledge in PLC & SCADA Programming concepts.
Solar power plant installations and maintenance training programme		3 WEEKS	Employability	To enhance the utilization of non conventional energy sources and to gain the installation specifications and troubleshooting in a solar power plant
Maintenance of electric machine windings and their routine inspections along with hands on experience		3 WEEKS	Entrepreneurship	To understand types of windings and their maintenance of electric motors. During the running condition types of routine inspections
Department of Mechanical Engineering				
Auto Cad	--	3 WEEKS	Entrepreneurship	After completion of this course the students are able to draw 2D &3D drawings of the Mechanical components

Catia	--	2 WEEKS	Employability	After Completion of this course the students are able to create , model and make analysis of engineering components		
Department of Civil Engineering						
Robotic structural Analysis	--	2 WEEKS	Employability	Analysis of reinforced concrete structures		
Revit architecture	--	3 WEEKS	Employability	2D & 3D Planning software.		
Revit Structures	--	4 WEEKS	Employability	Analysis of structures		
QA&QC	--	2 WEEKS	Employability	Quality Testing and Quality & Control,assurance		
Department of Science and Humanities						
Strengthening communication skills for future engineers	----	2 WEEKS	Employability	Get aware of corporate environment, team work, effective communication skills, usage of English words, prepared for interviews, Group Discussion		
1.2 Academic Flexibility						
1.2.1 New programmes/courses introduced during the Academic year						
Programme with Code		Date of Introduction	Course with Code	Date of Introduction		
-----NIL-----						
1.2.2 Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the Academic year.						
Name of Programmes adopting CBCS		UG	PG	Date of implementation of CBCS / Elective Course System	UG	PG
Department of Computer Science and Engineering						
B.Tech	CSE	---		June 2017	Elective	
Department of Electronics and Communication Engineering						
B.Tech	ECE	---		June 2017	Elective	
Department of Electrical and Electronics Engineering						
B.Tech	EEE	---		June 2017	Elective	
Department of Mechanical Engineering						
B.Tech	ME	---		June 2017	Elective	
Department of Civil Engineering						
B.Tech	CE	---		June 2017	Elective	
Already adopted (mention the year)						
1.2.3 Students enrolled in Certificate/ Diploma Courses introduced during the year 2017-2018						
		Certificate			Diploma Courses	
No of Students		190			---	

1.3 Curriculum Enrichment		
1.3.1 Value-added courses imparting transferable and life skills offered during the year		
Value added courses	Date of introduction	Number of students enrolled
Department of Computer Science and Engineering		
Web Design	22.06.2017	120
Python Programming	26.06.2017 to 30.06.2017	91
CCNA	20.10.17 to 30.10.17	118
Data analytics	26.12.2017	134
Department of Electronics and Communication Engineering		
PYTHON	26.06.17 to 30.06.17	90
CCNA	20.10.17 to 30.10.17	187
LABVIEW	26.06.17 to 30.06.17	176
Department of Electrical and Electronics Engineering		
ORCAD	22.08.2017-25.08.2017	30
MATLAB	05.12.2017-08.12.2017	40
ROBOTICS	25.01.2018-30.01.2018	57
1.3.2 Field Projects / Internships under taken during the year		
Project/Programme Title		No. of students enrolled for Field Projects / Internships
Department of Computer Science and Engineering		
Android Vechile Tracking Application		5
Online Recruitment Management System		5
Instant Online Examination System		4
Hybrid Cloud Approach For Secure Authorized Duplications		5
Health Monitoring System		4
Mitigating Insider Data theft attacks from Cloud		4
An Efficient Kat of a secret image sharing using visual cryptography		4
Android Learner		4
A Modified Dynamic Id based remote uses authentication scheme for muther-Server		4
A Captive Routing Scheme for wireless adhoc network		4
Intruder detection an energy efficient approach heterogeneous WSN		4
NATEGM : A model for examining the role of nodel attributes In Dynamic Social media N/W		4
A well Structured & secure stegonography format for data hiding		4
An Efficient way of Identifying threats in WMN		4

Dynamic Identity based authentication protocol for multiserver architecture	5
Internal Video traffic classification distributed across Video Streams	5
Blind Consecutive extracting Spread hidden data from digitalization	4
Detecting Targeted Malicious Packet Losses	4
Detecting Malicious Face book Applications	4
Voice Based Mail System for Blind People	4
Classification of KDD CVP dataset using SVM in IDS	4
Effective approach towards instruction detection using data mining	4
Image Processing based real time traffic surveillance	4
Aqua prawns monitoring system	4
An Efficient & Secure data hiding Scheme with visual steganography	4
multifarious information covering upin the view of VQ-COM Squeezed Pictures	4
An Algorithmic Approach to identify link failures	4
Enabling Public Verification bitility for storage Security in cloud	4
Department of Electronics and Communication Engineering	
A Novel Approach for communication for blind ,deaf and dumb people	4
Low power multiplier design using factoring technique	4
Digital image forgery detection	3
IOT based smart parking system	4
Medicine reminder and dispenser	4
RFID based bus tracking System	4
IOT based Gas detection using Robot	4
Design and implementation of WSN with low power consumption and data acquisition though GSM	4
Gas leakage detection using robot	4
Denoising and enhancing the ridge structure of finger prints	4
Low power and high speed carry adder with skip logic	4
Security system based on GSM and voice module	4
A novel on non-ridged face recognition with local appearances	4
An intelligence street light system based on IR sensor networks	4
Delay estimation of CMOS based DML using LE method	4
Unsupervised classification methods to develop a mode accurate land cover HYPERION EO-1 satellite image	4
Spatial spectral and hyper spectral image classification by using deep learning	4
Patient health care monitoring and alarming using WSN	4
Engergy efficient outdoor light monitoring and control architecture using Zigbee module	4
GSM based home control and Digital notice board	4
VLSI architecture for FFT using Radix-4 butterfly of complex valued data	4
Environmental monitoring using WSN using IOT	4
Transmission of images in a secured and efficient way with FFT and OFDM system	4
Intensity range based background subtraction for effective moving object detection	4
Contention window based service differentiation for dense IEEE 802.11 networks	4
Analysis of black hole attack on MANET routing reactive protocol	4
Non-invasive blood glucose monitoring system	4
A child left behind warning system using PIR sensor	4
Multipurpose autonomous agricultural robot	4
Raspberry pi based Home security system using IOT	4
Fingertip based heart beat monitoring system	4
Design of fast pipeline storage for high performance energy efficient computing	4

Implementation BCD addition using BERNT KUNG adder	3
Department of Electrical and Electronic Engineering	
Anfis based micro grid integration of hybrid pv/wind	4
Thermistor based induction motor protection	4
Optimal design and simulation of 150kwp grid connected photo voltaic (pv) power system	4
Solar based electrical appliances controlling through iot	4
Simulation of vehicle to grid connection system using renewable resources for electrical vehicles	4
Automatic solar water pump control with different time slots for power saving applications	4
Advanced vehicle control and safety system	3
Management of low -high-frequency power components in demand generation fluctuations of a dfig -based wind dominated raps system using hybrid energy storage	3
Department of Mechanical Engineering	
Design of the spur gear with 3 contact mating teeth	4
Fabrication of automatic fire inflation	5
Fabrication of spider (theo jansen) mechanism	
Fabrication of mechanical device for lifting child from bore-well	4
Fabrication of automated guided vehicle	4
Design and fabrication of multi operational machine by using bevel gears	4
Multi fuel engine (petrol + hydrogen)	4
Fabrication of dual blade solar powered grass cutter	4
Design and fabrication of linear pedaling bicycle without chain	4
Fabrication of spider (theo jansen) mechanism	4
Power pedal hexa blade machine	4
fabrication of hover board	4
Sliding wear behaviour of Ti-6Al 4V	4
Experimental analysis of rectangular plate to find out different boundary conditions	4
Design and analysis of spur gear with different contact mating teeth	4
Department of Civil Engineering	
Stabilization of expansive soils by using organic polymers	5
Partial replacement of fine aggregates with glass powder	5
An experimental study on utilisation of demolished coarse aggregates in structures	5
An experimental study to compare the strength characteristics of concrete using polypropylene fiber and polyester fiber admixtures	5
Domestic waste water recycling by using wet land plants	5
Experimental study on concrete by partial replacement of fine aggregates with crumb rubber	5
Stabilization of expensive soils in the new capital region of amaravathi by using crumb rubber powder and cement	5
Stabilization of black cotton soils by using rice husk ash and stone dust	5
Study on flexible pavements	5
Study of cement concrete having the partial replacement of cement with ground nut shell ash and fine aggregate with ground nut shell aggregates	5
1.4 Feedback System	
1.4.1 Whether structured feedback received from all the stakeholders.	

1) Students	2) Teachers	3) Employers	4) Alumni	5) Parents
Yes	Yes	Yes	Yes	Yes

1.4.2 How the feedback obtained is being analyzed and utilized for overall development of the institution?
(maximum 500 words)

The **Tirumala Engineering college** has “college centric feedback system “taken through online once in a semester to evaluate the quality of education in the institute. The feedback is collected at various levels from various stakeholders like Students, Parents, Teachers and Alumni. Then the feedback is analyzed at upper management and the appropriate action will be taken once the feedback is received.

Students Feedback: The feedback is collected at various levels during the academic session. The academic feedback taken one month from the class representatives through online.

- **General Feedback:** AR/CR feedback is taken on weekly basis regarding the general facilities including mess, canteen, general hygiene and cleanliness. The Higher authorities are taken actions against the problems immediately. The other problems which require management decisions are put up before the Chairman and also addressed accordingly.
- **Faculty Feedback:** The academic feedback collected from the students having 60% or more attendance are analyzed and the necessary corrective measures suggested to faculties by the head of the Institution. The feedback is also shared with department for any corrective measures
- **Syllabus Coverage:** 100 % syllabus coverage feedback is also collected from the AR/CR

Parents Feedback: The parents’ meet conducted by college every semester apart from other issues enables parents to give suggestions regarding the curriculum of their wards. This is duly noted by the relevant persons in the college

Alumni: The alumni of the college who have moved on to industry or for higher studies also give a feedback on how their years in the institution have helped them perform in their places of work/study. The alumni also give constructive suggestions on helping the students achieve greater focus and improving themselves. **Feedback can be taken through email or alumni portal**

Teachers Feedback: Teachers also assess the students through various mechanisms such as regular interaction with students, quizzes, assignments, daily attendance and mid-term examinations. Accordingly the students are assessed and marks awarded to them in consultation with the department and as per the institute guidelines/policy. The internal and external theory marks then becomes the final end semester achievement of the student.

CRITERION II -TEACHING-LEARNING AND EVALUATION

2.1 Student Enrolment and Profile

2.1. 1 Demand Ratio during the year

Name of the Programme	Number of seats available	Number of applications received	Students Enrolled
B,Tech-CSE	480	477	477
B,Tech-ECE	720	707	707
B,Tech-EEE	420	168	168
B,Tech-ME	420	253	253
B,Tech-CIVIL	240	240	240

2.2 Catering to Student Diversity

2.2.1. Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of full time teachers available in the institution teaching only UG courses	Number of full time teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses

2017-2018	1845	-----	114 (1:20)	---	---
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2.3 Teaching - Learning Process

2.3.1 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of teachers on roll	Number of teachers using ICT (<i>LMS, e-Resources</i>)	ICT tools and resources available	Number of ICT enabled classrooms	Number of smart classrooms	E-resources and techniques used
114	114	<ul style="list-style-type: none"> • NPTEL • EKLAVYA • UGC Gyan Dharsan • SMART Class Rooms • Open source software such as LINUX, 	24	12	<ul style="list-style-type: none"> • e-books • Tech Talk • Demonstration of Working Model • Online Test (Aptitude & Technical) • Video Lectures • Motivating students to carry out Socially relevant projects • Quiz • Brain Storming • Discussion Forum • Webinars • E-Learning Tech forums

2.3.2 Students mentoring system available in the institution? Give details. (maximum 500 words)

Tirumala Engineering College has Student Mentoring System to council and motivating the educational activities .Permanent faculty members has been allotted to the respective students from different sections and semesters for Mentorship. On an average 30 students are mentored by each Faculty Member.

The mentoring of the student is done by the faculty members through participative and non- participative method of observation. Various Co-curricular and professional activities take place within the department. The mentor encourages and ensures that the students prepare and participate in the activities. Student diversity observed on the bases of learning outcomes. When students encounter with any learning difficulty they are mentored by interactive sessions other than the regular classroom / laboratory contact hours. Remedial classes are conducted for these students after class hours to clarify doubts which include re-explanation of the topics for an improved performance. Frequent absenteeism is dealt by sending SMS and letters to the parents of such

students. Students and parents have access to ERP where the performance and attendance is updated and available for viewing. Counselling and mentoring sessions conducted in a friendly way to help the students to overcome their problems and achieve their goals successfully. These measures make the learners feel confident.

Mentoring benefits students because:

- It supports their advancement in Higher Education and research activity, conference presentations, publication, pedagogical skill, and grant-writing.
- Students are less likely to feel ambushed by potential bumps in the road, having been alerted to them, and provided resources for dealing with stressful or difficult periods in their graduate careers.
- The experiences and networks their mentors help them to accrue may improve the students' prospects of securing professional placement.
- The knowledge that someone is committed to their progress, someone who can give them solid advice and be their advocate, can help to lower stress and build confidence.
- Constructive interaction with a mentor and participation in collective activities he or she arranges promote engagement in the field.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor: Mentee Ratio
1845	114	1:20

2.4 Teacher Profile and Quality

2.4.1 Number of full time teachers appointed during the year 2017-2018

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
18	16	2	Professor - 3 Associate Professor – 9 Assistant Professor - 4	3

2.4.2 Honours and recognitions received by teachers

(received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
---------------	---	-------------	--

-----Nil-----

2.5 Evaluation Process and Reforms

2.5.1 Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year- end examination	Date of declaration of results of semester-end/
----------------	----------------	----------------	---	---

				year- end examination
B.TECH: (CE, EEE,MECH,ECE,CSE)	(CE: 01 EEE: 02, MECH:03,ECE:04,CSE: 05)	I-I	16/12/2017	9/3/2018
B.TECH: (CE, EEE,MECH,ECE,CSE)	(CE: 01 EEE: 02, MECH:03,ECE:04,CSE: 05)	II-I	7/11/2017	10/1/2018
B.TECH: (CE, EEE,MECH,ECE,CSE)	(CE: 01 EEE: 02, MECH:03,ECE:04,CSE: 05)	III-I	8/11/2017	23/12/2017
B.TECH: (CE, EEE,MECH,ECE,CSE)	(CE: 01 EEE: 02, MECH:03,ECE:04,CSE: 05)	IV-I	9/11/2017	23/12/2017
B.TECH: (CE, EEE,MECH,ECE,CSE)	(CE: 01 EEE: 02, MECH:03,ECE:04,CSE: 05)	I-II	8/5/2018	21/7/2018
B.TECH: (CE, EEE,MECH,ECE,CSE)	(CE: 01 EEE: 02, MECH:03,ECE:04,CSE: 05)	II-II	18/4/2018	11/6/2018
B.TECH: (CE, EEE,MECH,ECE,CSE)	(CE: 01 EEE: 02, MECH:03,ECE:04,CSE: 05)	III-II	20/4/2018	1/6/2018
B.TECH: (CE, EEE,MECH,ECE,CSE)	(CE: 01 EEE: 02, MECH:03,ECE:04,CSE: 05)	IV-II	26/4/2018	20/5/2018

2.5.2 Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

The institute has taken efforts to improve the performance of students by framing significant reforms in Continuous Internal evaluation at the institute level .

The reforms are as follows:

1. Remedial measures are taken by conducting tutorial classes to clarify doubts and Re- explaining the critical topics.
2. Unit tests are conducted prior to MID examinations.
3. Topic wise question banks are provided for all subjects.
4. Students are encouraged to solve previous years University Exam question papers.
5. For All students prelim exams are conducted prior to University Exams
6. MOODLE learning Management System is utilized for Continuous internal evaluation like quiz and assignments
7. Mnemonics and mind mapping are included as an innovative practice.
8. The institute regularly conducts, group discussions, seminars and guest lectures.
9. Poor performance due to frequent absenteeism is dealt by sending registered letters to the parents of such students.
10. Monitoring the improvement in learning of slow learner and encouraging the advanced learners by reviewing their performance in exams.

Impact: These reforms have resulted in substantial improvement in student's performance through comprehension of difficult topics, improved time management, enhanced writing skills and individualized attention resulting in refining their cognitive, psychomotor and affective domains of learning. This has significantly enhanced the pass percentage and academic excellence of students.

2.5.3 Academic calendar prepared and adhered for conduct of Examination and other related matters (250 words)

The institution ensures effective time management and timeliness. It receives the university given timeline and adheres to it. In the beginning of the academic year, academic calendar is published by the institution for each year of undergraduate course which gives a time plan for the curricular as well as the extracurricular activities for the students. The college carries out effective planning to stick to academic calendar. This allows the teachers and the students to space out their teaching and learning and regular assessment of the same.

For the undergraduate program, the college conducts assessment of the students in three different components - theory, practical and viva-voce. The pattern and the marks distribution of all the components is as per the university format. They are mapped with their respective course outcomes that are stated in the beginning of the course. These tests are conducted in evenly spaced out intervals to avoid pressuring the students with too many examinations.

HOD's in consultation with other functionaries of the college prepare the academic annual calendar before commencement of the academic year and communicate to all the concerned to inform the academic programme and various examinations schedule to be conducted in the semester. Based on the approved academic calendar, the examination cell will prepare a time-table for internal and external theory and lab examinations and evaluation etc.

Academic annual calendar consists of all activities of the academic year which includes

- Class committee meetings.
- Internal assessments schedule.
- Syllabus coverage schedule.
- Project review schedule and
- Academic audit for every semester

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 in website of the institution (to provide the web link)

Program outcomes, program specific outcomes and course outcomes for all programs are Designed based on institutional vision and Mission and displayed in institution website <http://www.tecnrt.org>..

The weblink of Computer science and Engineering department : http://www.tecnrt.org/cse_dept.php

Electronics and Communication Engineering : http://www.tecnrt.org/ece_dept.php

Electrical and Electronics Engineering : http://www.tecnrt.org/eee_dept.php

Mechanical Engineering : http://www.tecnrt.org/me_dept.php

Civil Engineering : http://www.tecnrt.org/civil_dept.php

Science and Humanities : http://www.tecnrt.org/sh_dept.php

2.6.2 Pass percentage of students				
Programme Code	Programme name	Number of students appeared in the final year examination	Number of students passed in final semester/year examination	Pass Percentage
05	CSE	116	102	87.93
04	ECE	174	150	86.21
03	ME	61	42	68.85
02	EEE	30	24	80
01	CIVIL	54	46	85.19

2.7 Student Satisfaction Survey

2.7.1 Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

A feedback survey to assess the students' satisfaction on the curriculum, teaching learning processes and infrastructure was made. Opinion of a sample of about 60 students from each branch was collected using a software based analysis of structured feedback forms.

The results of the student satisfaction survey is taken through online .The results are analysed and sent reports to the Higher Authorities .

Weblink : <http://www.tecnrt.org/sss/sss.php>

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 Resource Mobilization for Research

3.1.1 Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding Agency	Total grant sanctioned	Amount received during the Academic year
Major projects				
Minor Projects				
Interdisciplinary Projects				
Industry sponsored Projects				
Projects sponsored by the University/ College	1 month	College	1,50,000	1,50,000
Students Research Projects (other than compulsory by the College)				
International Projects				
Any other(Specify)				
Total			1,50,000	1,50,000

3.2 Innovation Ecosystem

3.2.1 Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of Workshop/Seminar	Name of the Dept.	Date(s)
VLSI DESIGN TOOLS	ECE	12-16 JUNE 2017

3.2.2 Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of the Awardees	Awarding Agency	Date of Award	Catego ry
.....Nil				
3.2.3 No. of Incubation centre created, start-ups incubated on campus during the year				
Incubation Centre		Name	Sponsored by	
The college is planning to set up incubation centres in various departments in association with MSME (Ministry of micro , small and medium Enterprises) in order, ✓ To promote Local and International Employment opportunities for students (during study and upon graduation) and for Faculty ✓ To forge a strong collaboration between the university and industry and to find solutions to technological problems. ✓ Encouragement to faculty and Students to obtain patents for their project and research work.				
Name of the Start-up		Nature of Start-up	Date of commencement	
-----Nil-----				
3.3 Research Publications and Awards				
3.3.1 Incentive to the teachers who receive recognition/awards				
State		National	International	
-----Nil-----				
3.3.2 Ph. Ds awarded during the year (<i>applicable for PG College, Research Centre</i>)				
Name of the Department		No. of Ph. Ds Awarded		
Computer Science and Engineering		Nil		
Electronics and Communication Engineering		Nil		
Electrical and Electronics Engineering		Nil		
Mechanical Engineering		Nil		
Civil Engineering		Nil		
3.3.3 Research Publications in the Journals notified on UGC website during the year 2017-2018				
	Department	No. of Publication	Average Impact Factor, if any	
National				
International	Computer science and Engineering	3	0.9	
International	Electronics and Communication Engineering	2	4.08	
International	Electrical and Electronics Engineering	3	1.6	
3.3.4 Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year				
Department		No. of publication		
Electronics and Communication Engineering		3		
3.3.5 Biblio metrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or Pub Med/ Indian Citation Index				

Title of the paper	Name of the author	Title of the journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citations
Computer Science and Engineering						
Detecting malicious facebook hookups	Dr.B.Bhanu Prakash	IJR	Mar-18	NIL	YES	NIL
Efficient Multi-Keyword Search Over Encrypted Data In Cloud International Journal of Pure and Applied Mathematics (IJPAM)	Dr.B.Bhanu Prakash	(IJPAM)	AUGUST 2017	NIL	YES	NIL
A Review On Recommendation System Using Rating Dataset	Dr.B.Bhanu Prakash	(IJPAM)	AUGUST 2017	NIL	YES	NIL
Electronics and Communication Engineering						
Design and analysis of compact CPW fed elliptical patch antenna for UWB applications	1.Anjaneyulu Katuru, 2.Sudhakar Alapati	International Journal of Computer Technology and Applications	Jan 2017	Nil	Tirumala Engineering college	Nil
A novel prototype for environmental monitoring using IOT architecture	Mrs.R.L Thirutamma	International Journal of Engineering Sciences & Research Technology	Jul 2017	Nil	Tirumala Engineering college	Nil
Department of Electrical and Electronics Engineering						
Grid synchronised PV-system analysis & characteristics for non linear loads and anomalous situation	G.v.prasanna anjaneyulu	International Journal of electrical and electronics engineering	June 2017			

DSP Controlled Inverter Fed speed control of Three Phase Induction Motor	GADDALA JAYARAJU	Journal Science & Technology				
Wavelet based internal fault discrimination in power transformers	GADDALA JAYARAJU, kesana gopikrishna	Journal of engineering				

3.3.6 h-index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the paper	Name of the author	Title of the journal	Year of publication	h-index	Number of citations excluding self citations	Institutional affiliation as mentioned in the publication

3.3.7 Faculty participation in Seminars/Conferences and Symposia during the year :

No. of Faculty	International level	National level	State level	Local level
Attended Seminars/ Workshops		6	2	2
Presented papers		4	--	2
Resource Persons		--	--	2

3.4 Extension Activities

3.4.1 Number of extension and outreach programmes conducted in collaboration with industry, community and Non-Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the Activities	Organising unit/ agency/ collaborating agency	Number of teachers co-ordinated such activities	Number of students participated in such activities
Village survey	NSS	4	100
Shramadana			
Clean and Green	NSS	30	100
Plantation	NSS	30	100
Blood donation camp	NSS	4	100
Awareness on electromagnetic pollution	NSS	2	04
Cultural and science exhibition	NSS	04	100
Yoga day	NSS	100	100
Republic day	NSS	100	100
Independence day	NSS	100	100
Mega LLR Mela	NSS	06	500

3.4.2 Awards and recognition received for extension activities from Government and other recognized bodies during the year				
Name of the Activity	Award/recognition	Awarding bodies	No. of Students benefited	
Blood Donation Camp	Best NSS Unit Award	JNTUKUniversity	100	
3.4.3 Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year				
Name of the scheme	Organising unit/ agency/ collaborating agency	Name of the activity	Number of teachers coordinated such activities	Number of students participated in such activities
Welfare Scheme	Yuga club	Installation of R.O purifier and ultrafiltraion	3	140
Swachh Bharat Summer Internship Programme	NSS	Health Awareness College Cleaning General Awareness	1	200
3.5 Collaborations				
3.5.1 Number of Collaborative activities for research, faculty exchange, student exchange during the year				
Nature of Activity	Participant	Source of financial support	Duration	
Projects	Students	College	6 Months	
Research Publications	Faculty	College	1 year	
3.5.2 Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the year				
Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration (From-To)	participant
project work	Embedded Systems	ECIL,Hyd 040-27182495 Email: headhr@ecil.co.in	28-04-2018 to 27-05-2018	Total-3 1.k.Akhila 2.M.Mahesh 3.N.Umamahesh
Internship	PHP Web Development	SMART BRIDGE, Hyderabad, Telangana	16/06/2017 to 10/07/2017	M. Sai Krishna 14NE1A0563
Internship	Web designing	Oppiminen & Kehitys, Hyderabad	02/05/2018 to 15/06/2018	N.SaiJyothi (15NE1A0574), B.Rani Himaja (15NE1A0516) , P.Ajantha (15NE1A0583)
3.5.3 MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year				
Organisation	Date of MoU	Purpose and Activities	Number of students/teachers	

	signed		participated under MoUs
CODE TANTRA TECH SOLUTIONS Pvt. Ltd.	24-08-2017	Enhance the students coding skill	Students-120 Teachers-10
HI-Q TEST EQUIPMENT Pvt. Ltd.	11/12/2015	R&D Projects and students Projects	Students-120 Faculty-15

CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
Rs.2,25,00,000	Rs.1,99,96,119

4.1.2 Details of augmentation in infrastructure facilities during the year

Facilities	Existing	Newly added
Campus area	15.31 acre	----
Class rooms	36	3
Laboratories	24	5
Seminar Halls	6	2
Classrooms with LCD facilities	12	4
Classrooms with Wi-Fi/ LAN	36	3
Seminar halls with ICT facilities	5	-
Video Centre	--	--
No. of important equipments purchased (\geq 1-0 lakh) during the current year.	--	---
Value of the equipment purchased during the year (Rs. in Lakhs)	---	----
Others	---	---

4.2 Library as a Learning Resource

4.2.1 Library is automated { Integrated Library Management System -ILMS }

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation
Ecap	Fully	2.3	2013

4.2.1 Library Services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	21258	73,32,008.53/-	83	32845.22/-	21341	73,64,853.75/-
Reference Books	1094		8		1104	
e-Books	10789	13,570/-			10789	13,570/-
e-Journals	296				296	
Journals	74	1,17,067.61/-		22,339.98/-	74	1,39,467.59/-
Digital Database	YES				Yes	
CD & Video	1170		3		1173	
Library automation	YES				Yes	
Weeding (Hard &	NO				NO	

Soft)						
Digital Library	Yes	5,21,882/-			Yes	5,21,882/-
NPTEL Videos	932	31,500/-			932	31,500/-
Others (specify)						

4.3 IT Infrastructure

4.3.1 Technology Upgradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Available band width (MGBPS)	Others
Existing	650	10	100Mbps	1	29	1	6	100GBPS	--
Added	200	2	--	--	1	--	--	50Mbps	--
Total	850	10	2	1	3	1	6	140Mbps	-

4.3.2 Bandwidth available of internet connection in the Institution (Leased line)

.....100.....GBPS

4.3.3 Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
NPTEL Video Course, Other Library Links , E-Book Websites, OPEN SOURCE E-JOURNALS, NPTEL, EDUSAT, ICT	http://nptel.iitm.ac.in , nptel.ac.in/courses ,

4.3.4 E-content developed by teachers such as: e-PG-Pathshala, CEC (under e-PG-Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the teacher	Name of the module	Platform on which module is developed	Date of launching e - content
	--- Nil-----		

4.4 Maintenance of Campus Infrastructure

4.4.1 Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
4,16,50,000	4,16,41,242	1,05,00,000	10494030

4.4.2 Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (*maximum 500 words*) (information to be available in institutional Website, provide link)

Procedures and policies

The physical and academic facilities including Laboratories, Classrooms and Computers etc. are

made available for the students those who are admitted in the college. In addition to that non-salary grants are allocated for the maintenance of the computer lab and the class room with other allied facilities which are the part of the teaching-learning activities. The newly installed white boards and class room furniture facilities are utilized regularly by the students but sometimes it is also made available for the government organizations for the event like election, competitive exams and other examination if not in the use for the said period. The maintenance and cleaning of the class rooms are done with the efforts of the non-teaching staff and in major cases the college goes for the maintenance contract to local experts. Sweepers are available in the institution to cleanliness of the college building. The maintenance and the cleaning of the classrooms and the laboratories are done with the efforts of the non-teaching staff and in major cases the college goes for the maintenance contract to local experts. The college garden is maintained by the gardener appointed by the institute. The college has lush green garden maintained by the gardener appointed by the institution.

The college has adequate number of the computers with internet connections and the utility software's distributed in different locales like office, laboratories, library, departments etc. All the stakeholders have equal opportunity to use those facilities as per the rules and the policies of the institution. The central computer laboratory connected in LAN is open for the students as time permits them, the office computers which are also connected through the LAN is consisting of the office software making work easier and systematic are restricted their use only to the appointed office staff.

The library is also provided LAN facility for the computers and they are loaded with the library software. The departments and the staff can make use of the computer system with internet at their seating places in addition that majority of the staff has their own laptops and the internet providing instruments, all those computer related facilities are given to Computer science department for maintenance annually as well as general maintenance department caters to any issues that need to be rectified.

As part of virtual Instrumentation laboratory "Skill Development " has been established in 2017, wherein around 45 students are benefited for learning different skilled courses established by the college in association with AP Govt and IIT, Mumbai. The campus and hostels are WiFi enabled with 100 Mbps (1:1) bandwidth.. Food court has spacious dining hall and its operation and maintenance including the preparation of food are closely monitored to ensure nutrition and hygiene.

Maintaining and utilizing physical, academic and support facilities

The institutional mechanisms for maintenance and upkeep of the infrastructure facilities and equipment of the college, a maintenance Committee coordinated is carried out by the following .The separate Functional Committee, which comprises of faculty members from each department, is available for maintenance and upkeep of the infrastructure facilities and equipment of the college.

The Functional Committee coordinates with the following members to carry out the above activities:

- The Manager, Maintenance supervisor, Maintenance assistants and Annual Maintenance Contractors for maintenances of ACs, UPS, Lifts, Water Cooler and Fire Extinguisher
- Other Maintenance services includes Computer Maintenance Cell, Electrical maintenance work, Housekeeping
- In addition to that sufficient number of sweepers and other worker are employed to keep the places neat and clean.
- The college gives preference in 5-s concepts and audits are conducted periodically by a team of experts.
- During class committee meetings, students' feedback are taken on infrastructure facilities and suitable actions are taken, wherever required

- Class rooms are swept clean every day
- The corridors are wiped clean with sanitation liquid once every day
- Rest rooms in all floors are sanitized and cleaned twice every day
- A nominated faculty as a floor coordinator inspects and certifies the cleanliness of rest rooms
- The lawns and gardens are cleaned of any garbage and wastes everyday
- Tidiness of the entire campus is ensured by the dedicated house-keeping team
- In order to provide portable drinking water to the students, water coolers are provided in each floor for each department and cleaning is done every day by the maintenance department. Above all, the infrastructure is refurbished periodically.

Web link <http://www.tecnrt.org/infrastructure/default.php>

CRITERION V - STUDENT SUPPORT AND PROGRESSION

5.1 Student Support

5.1.1 Scholarships and Financial Support

	Name /Title of the scheme	Number of students	Amount in Rupees
Financial support from institution	Merit scholarships	120	18,00,000
Financial support from other sources			
a) National	-----	----	--
b) International	-----	----	----

5.1.2 Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
Soft skill development	1- 08-2017	200	College
Language lab	1-07-2018	25	College
Bridge courses	24.08.2017	908	College
Yoga & Meditation	28-06-2017	100	Art of Living Foundation
Personal Counselling and Mentoring	-	283	College is having a professional student counsellor to do personal counselling and mentoring.

5.1.3 Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students by Guidance for Competitive examination	Number of benefited students by Career Counselling activities	Number of students who have passed in the competitive exam	Number of students placed
2017	GATE			-	-
2017	CAT			-	-
2017	GRE			-	-

5.1.4 Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	No. of grievances redressed	Average number of days for grievance redressal
2	2	1 week

5.2 Student Progression

5.2.1 Details of campus placement during the year 2017-2018

On campus			Off Campus		
Name of Organizations Visited	Number of Students Participated	Number of Students Placed	Name of Organizations Visited	Number of Students Participated	Number of Students Placed
Ggk hyderabad	580	17			
Mroads,hyderabad	60	0			
Efftronics,vijayawada	150	1			
Technovert,hyderabad	500	2			
Multiplier solutions,hyderabad	70	3			
Pilog,hyderabad	60	7			
			Vedaiit, hyderabad	40	1
Glenwood,chennai	150	2			
			Soctrionics	1	1
Pivoxlabs	100	2			
			Cattin,hyderabad	50	7
			Collaberra	50	4
			Ricksun infotech ltd	20	2
			Ways 2captial	1	1
			Vee technologies	50	7
Infosys	170	2			
Leeap,chennai	80	0			
Nvh india,chennai	60	17			
Asahi india glass ltd,chennai	60	1			
Hinduja global services	150	78			
Maintec,Hyderabad	100	6			
			Accenture	1	1
			DXC	2	2
			Rivigo	1	1

5.2.2 Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of Programme admitted to
2017-2018	13	Tirumala	Electronics and	1.K.Vijay Kumar	MS

		Engineering College	Communication engineering	Deakin University	
2017-18		Tirumala Engineering College	Electronics and Communication engineering	2.K.Raghava Flinders University	MS
2017-18		Tirumala Engineering College	Electronics and Communication engineering	3.R.Aruna Jyothi Sai Tirumala Engineering College	M.Tech
2017-18		Tirumala Engineering College	Electronics and Communication engineering	4.N.Venkatesh Curtin University	MS
2017-18		Tirumala Engineering College	Electronics and Communication engineering	5.N.Vamsi University of Tasmania	MS
2017-18		Tirumala Engineering College	Electronics and Communication engineering	6.T.Mrudula Amulya JNTUK,Kakinada	M.Tech
2017-18		Tirumala Engineering College	Electronics and Communication engineering	7.M.Pradeep Curtin University	MS
2017-18		Tirumala Engineering College	Electronics and Communication engineering	8.K.Manoj Kumar Deakin University	MS
2017-18		Tirumala Engineering College	Electronics and Communication engineering	9.A.Mahesh Acharya Nagarjuna University	M.Tech
2017-18		Tirumala Engineering College	Electronics and Communication engineering	10.J.Siva Sai Flinders University	MS
2017-18		Tirumala Engineering College	Electronics and Communication engineering	11.B.Sambasiva Rao Acharya Nagarjuna University	M.Tech
2017-18		Tirumala Engineering College	Electronics and Communication engineering	12.B.Ramyasri Sai Tirumala Engineering College	M.Tech
2017-18		Tirumala	Electronics and	13.G.Bhargavi	M.Tech

		Engineering College	Communication engineering	Acharya Nagarjuna University	
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5.2.3 Students qualifying in state/ national/ international level examinations during the year (eg: NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	No. of Students selected/ qualifying	Registration number/roll number for the exam
NET		
SET		
SLET		
GATE		
GMAT		
CAT		
GRE		
TOFEL		
Civil Services		
State Government Services		
Any Other		

5.2.4 Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Participants
Kabadi	National	All engineering Colleges
Kho-Kho	National	All Engineering Colleges
Basket Ball	National	All Engineering Colleges
Volley Ball	National	All Engineering Colleges
Throw Ball	National	All Engineering Colleges
Intramoral(All Games)	College	Tirumala Engineering College

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)

Year	Name of the award/ medal	National/ International	Sports	Cultural	Student ID number	Name of the student
2017-2018	South zone Inter University	National	Basket Ball		14NE1A0119	J .Pranay Kumar
2017-2018	South zone Inter University	National	Volley ball		16NE1A0566	M.Sravini
2017-2018	South zone Inter University	National	Kho-Kho		15NE1A0215	L.V.pushpalatha
2017-2018	South zone Inter University	National	Tennies		14NE1A05A3	T.Divya sranthi

5.3.2 Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

Tirumala Engineering College creates a smooth and best platform for the active participation of the students in the various academic & administrative bodies including other activities. This empowers the

students in gaining leadership qualities, rules, regulations and execution skills. All the departments have a student society, student chapters of various professional associations and various social clubs. Head of the Department, staff and students of the respective departments in consultation with the Principal elect the office bearers. The student society of every department conducts National level Symposium every year in which they organize various technical and non-technical events. The students are members and volunteers of the symposium. They get funding from concerned agencies and partial funding from the institution and by student membership and sponsorship. The College has various academic and administrative bodies that have student representatives. This representation helps them in their overall development. These bodies create more avenues for students to develop technical skill, update knowledge, develop their personality and motivate them to do social service. There are staff advisers to guide students in the smooth and efficient conduct of these activities. Following are the various committees and societies of the college.

Academic and administrative committees

- Class Committee
- Library Committee
- Sports committee
- Grievance / Redressal committee
- Event management committee
- Magazine committee
- Placement and training Coordination Committee
- Cultural and fine arts committee
- Newsletter Committee
- Hostel Coordination Committee
- Special Committee for Girls Students
- Anti-ragging Committee

Contribution of the Student Council in Academic Administration

1. Coordination in day to day academic activities at their level
2. Coordination in communicating the information between students and Teaching faculty
3. Coordination in conducting special events like Spectrum etc.
4. Coordination in organizing Cultural events
5. Coordination in organizing Sports & Games for the students
6. Coordination in arranging Industrial Visits for the students
7. Coordination in inviting the external guest speakers and organizing the Seminars & Workshops.

5.3 Alumni Engagement

5.3.1 Whether the institution has registered Alumni Association? if yes give details (maximum 500 words):	Yes
<p>An alumni association is an association of graduates or, more broadly, of former students (alumni). in the Tirumala Engineering College, Narasaraopet, Guntur(Dt).The body was registered as Tirumala Engineering College Alumini in the year 2017 with the sole aim of setting up an excellent network amongst our former students and our College. The idea was to facilitate and ensure a continuing and life long relationship among the alumni, students, faculty and Alma matter.</p> <p>The alumni association has a chief faculty coordinator for the college and department alumni coordinators. This team plans and organizes two alumni meets at the college level-one an annual general body meeting and another alumni meet for all alumni. The alumni association has alumni office bearers which include President, Vice-President, General Secretary, Treasurer and Joint Secretaries. The alumni association releases a newsletter “Footprints” every year. Every department conducts at least 3 to 4 alumni interactions every year.</p> <p>Many of our alumni are placed in senior positions in companies of repute. They are spread across the length and breadth of the globe. This brings in a wealth of talent from these professionals who share their expertise and experience with the students. A number of brainstorming sessions are held on prospective avenues. Periodic meetings are arranged by the alumni coordinators where alumni from varied backgrounds are invited to deliver lectures. During these interactions, the alumni throw light on current cutting edge technical topics. They also give motivational lectures for all students including first years.</p> <p>Alumni contributions also include arranging for campus placements and being part of mock placement drives thus strengthening our efforts towards achieving 100% placement. The alumni also provide inputs to students on project works and Industry-Institution Interaction.</p> <p>More than 20% of our alumni pursue higher studies in premier universities in abroad and in India. Hence such alumni visit the college and share their knowledge on choosing universities, the process to be undertaken for this and guide the students to apply and secure admissions for post graduate studies.</p> <p>Alumni contribute towards institutional development activities and their latest contribution is Rs. Ten lakhs towards setting up Skill Development Laboratory. They help create opportunities for training and special projects apart from guest lectures, industrial visits and seminars. They also suggest modifications and updating of curriculum and Value Added Courses to meet the industrial needs.</p> <p>In addition, many of our alumni are successful entrepreneurs. So, they deliver guest lectures and conduct seminars to create awareness about Entrepreneurship, nurture and actualize Entrepreneurial talent among students. They also provide Entrepreneurship Development training for interested students on selected product class with orientation on preparing bankable projects. They encourage students to think of small-budget projects with innovative and beneficial ideas.</p>	
5.3.2 No. Of registered enrolled Alumni:	Tirumala Engineering College Alumini
5.3.3 Alumni contribution during the year (in Rupees) :	10 lacks
5.3.4 Meetings/activities organized by Alumni Association :	15
<p>The Annual general body meeting was conducted on 25.5.2017 and the Annual alumni meet was conducted on 10.1.2018. 44 activities at department level has been conducted by Alumni Association.</p> <p>Activities conducted by Alumni:</p>	

S. No	Activity	Name of the Former Student	Title	Date
1	Guest lecture	Mr.P.AdhiNarayana	Big Data Analytics	12.08.2017
2	Motivational talk	Mr.J.S.R.Annamayya	Career awareness	16.9.2017
3	Technical talk	Mrs.D.pallavi	Opportunities In software Industry	18.11.2017
4	Technical talk	Mr.sk.Abdul kader	Orientation program on Programming skills in industries	16.12.2017
5	Alumni Student Interaction	Mr.I.jayaprakash	Alumni Meet	30.12.2017
6	Alumni Student Interaction	Mr.J.S.R Annamayya	Alumni meet	13.01.2018
7	Guest lecture	Mr.D.pavan Kumar	Cloud computing	27.01.2018
8	Guest lecture	Mr.D.mahesh	Embedded System	27.01.2018
9	Guest lecture	Mr.G naveen	Power Systems	27.01.2018
10	Guest lecture	Mr.A Avinash	Automobiles	27.01.2018
11	Placement Training	Mr.J.S.R Annamayya	Career opportunities in different Industries	3.02.2018
12	Alumni Interaction	Mr.K.Rajesh	Alumni Meet	17.02.2018
13	Alumni Interaction			
14	Interaction with students – Creating awareness	Mr.K.Rajasekar	Awareness on Entrepreneurship	10.03.2018
15	Interaction with students	Mr.B.barath Kumar	Hackthon Programs	23.03.2018

CRITERION VI –GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1 Mention two practices of decentralization and participative management during the last year (maximum 500 words)

Our Management is highly committed and dedicated to the service of catering to the contemporary requirements of higher education. The Management gives sufficient freedom to the Principal to function in order to fulfil the vision and mission of the college. The Management provides required infrastructure for proper functioning of the institute. There is a Quality Policy for the college. The responsibilities of each member are communicated to the faculty through regular staff meetings. The Top Management, Principal and faculty of the college are committed to plan, implement, document and continually improve effectiveness through a Quality Management System .The Top Management is committed to ensuring conformity and compliance to institutional standards. The IQAC cell can frame standards of institution rules and regulations ,policy matters which are decided in governing body council meeting and same can be disseminated to all department .

College Vision

To be a world class leader in transforming lives through an innovative, rigorous and compassionate approach by imparting high quality academic excellence in technical education to uplift the living standards of the rural youth by promoting the cutting edge technologies, employability, higher education and research with socio-ethical, eco-friendly and entrepreneurial values.

College Mission

To develop high quality technical personnel with a sound footing on basic engineering principles, innovative research capabilities and exemplary professional conduct to lead and to use technology for the

<p>progress of mankind, training and adepting them to changing technological environment by providing the high quality instruction, infra, faculty, effective teaching and learning methods imbining socio-ethical, eco-friendly and entrepreneurial values as the inner strength for rural development</p> <p>Quality Policy</p> <p>We, at Tirumala Engineering College, Strongly believe that Quality is the essence of life. Hence, TEC will constantly strive to improve the quality of education and training imparted to its students by establishing state-of-the-art laboratories and modernizing them continually, upgrading the knowledge and skills of its staff periodically and developing strong linkages with industry.</p> <p>Decentralization</p> <p>Decentralization Institute has a mechanism for delegating authority and providing operational autonomy to all the various functionaries to work towards decentralized governance system. Decentralization is having a significant impact on policy education. To promote quality of education to all sections of people in academic and non academic to develop a responsible management. At the same time, decentralization is seen as a means of improving the efficiency of education system and the quality of educational services. At various levels the college grooms the leadership. Governing body, Management, Principal, Vice Principal, IQAC Members, Steering committee, teaching staff, non-teaching staff, supporting staff, student's union, student representatives, Stakeholders, Aluminies and various committees jointly empowered to propose, design, formulate and execute their plans within the frame work of governance. The Academic, Administrative, NCC, NSS, IQAC all are working together for the smooth running and over all functioning of the college.</p> <p>Decentralization Institute has a mechanism which has many levels are given below.</p> <ol style="list-style-type: none"> 1. Principal Level 2. Faculty Level 3. Student Level 	
6.1.2 Does the institution have a Management Information System (MIS)?	Yes
Yes/No/Partial:	
<p>Yes, the Institution has a management Information System.</p> <ul style="list-style-type: none"> • Accounts and financial works • Staff attendance biometric • Library information system. 	
6.2 Strategy Development and Deployment	
6.2.1 Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):	
<p>❖ Curriculum Development:</p> <p>Our institution is affiliated to JNTUK University, Kakinada. it abides by the changes in curriculum as prescribed by the university. Department advisory board is constituted with senior faculty to analyses the student's feedback on curriculum and also study the curriculum implemented in various institutions. The committee will submit a brief report to chairperson/principal. IQAC suggests changes for improvement and up gradation of the curriculum after discussions. The syllabi is prepared, with an objective of</p> <ul style="list-style-type: none"> • Making the curricula to meet the industry requirement • A course end survey is conducted at the end of every course and necessary measures are taken. The results of mid exams are mapped with Course Outcomes and the achievement 	

levels are indexed. It has been made mandatory to map every course objective with the course outcome
<p>❖ Teaching and Learning</p> <ol style="list-style-type: none"> 1. The institution always places the students at the centre of the teaching learning process. 2. ICT enabled classrooms makes the student, the centre of teaching-learning process and the teacher, a facilitator for the students. 3. There are provisions for sending notes and lecture presentations to group mail ids of the students. 4. NPTEL programmes help the student to understand the difficult subjects. Students make use of the internet, lab facilities to prepare for seminars/conferences/paper presentations etc. 5. Students are benefitted from Online Public Access Catalogue for online access of E-Journals. 6. Online course materials are hosted on the intranet server to provide access to students. 7. Students are provided with internet facility for their project work and for updating their knowledge. 8. They use technologies developed by the college for solving problems, prepare and analyze different methods for practical applications. 9. The college also conducts various workshop, seminars, guest lectures, conferences for the students, in order to acquaint them with current emerging trends. 10. Teaching/ Learning process is enhanced based on the feedback given by the students.
<p>❖ Examination and Evaluation</p> <ol style="list-style-type: none"> 1. The college conducts two internal assessment tests[MID] during the semester through a centralized Examination Cell 2. Each subject handler gives at least three assignments per semester. 3. A tutorial plan is also prepared and followed for enhanced learning of the subjects. 4. Examinations are conducted as per JNTUK University 5. End semester examinations are conducted by JNTUK University.
<p>❖ Research and Development</p> <ol style="list-style-type: none"> 1. Research and Development is the one of main focuses of the Institution. Management sponsors the faculty members for pursuing their PhD programmes. 2. A functional committee has been constituted by the institution to device the strategies on implementing the research and development activities. 3. Research & Consultancy Cell 4. Periodical FDPs are organized to encourage in research work 5. Faculty members are encouraged and supported to publish papers and also present

6. papers in conferences through incentives like travel reimbursement, funding and awards Incentives are given for good project proposals
7. Incentive are given for paper published in Journals.
8. Funds from AICTE, UGC, DRDO and University are acquired and utilized for research and developmental activities and for upgrading the laboratories. It is under process.

❖ Library, ICT and Physical Infrastructure / Instrumentation

1. Availability of text books, reference books and journals in the library is ensured for the effective course delivery. Also special audio visual room is available in the library to help the students to listen to the lectures delivered on the subjects by experts from IIT through web telecast.
2. The college subscribes to most of the major technical journals includes IEEE, ACE, ASME, ASTM, J-GATE, McGraw-hill Access Engineer, Science Direct Journals etc. useful for researchers in various departments. Moreover NPTEL video classes are also available for 400 subjects. Besides central library, there are libraries in each department with ample volume of books, magazines and journals for easy access of reference books for faculties and research scholars. On special request from the research scholars, books required for research is made available and the library facilities can be availed for extended hours.
3. The institution strongly advocates and encourages the use of ICT tools to enrich the learning experience of the students inside and outside the classroom. Nearly 13 classrooms are ICT-enabled including spacious seminar halls and auditorium for specialized needs.

❖ Human Resource Management

1. Our institution is very much concerned of its human resources. Employees are given highest importance and their desires are recognized well.
2. The recruitment procedures, service rules and promotion policies are made transparent and employees are benefitted with CL, EL, ML and EPF.
3. Employee's salary will be credited in the bank account directly,
4. Pay slips are issued to the employees every month.
5. Non-Teaching staff have ESI facility for their family members.

The institution encourages the employees to their promotional activities in the form of higher education, presenting research papers in National/International conferences with financial assistance.

❖ Industry Interaction / Collaboration

With constant encouragement by the management, the departments constantly strive to enter into

MoUs with the industries to provide summer internships, main projects for students. Industry experts are invited to give seminars on the advanced technology. Interaction with industry helps to provide industrial visits, arranging training programmes to students. Interaction with industry is providing opportunities for consultancy works and research. Industry interaction has provided opportunity for the students to undergo inplant training, industrial visit, etc.

❖ **Admission of Students**

Students are admitted on the basis of merit through state wide entrance examinations EAMCET / PGCET / ECET and / ICET conducted by State Government.

6.2.2 : Implementation of e-governance in areas of operations:

❖ **Planning and Development**

1. The Planning and Development Division or IQAC formulates short-term and long-term plans, policies, procedures to operationalize various programmes and activities in the departments. This can be periodically reviews and monitors the performance of all the schemes and activities of the Departments
2. The signing of MoU with the reputed industries supports to interact our faculty members with them to identify the industrial related problems. Our faculty members discuss the observed industrial related problems with the faculty members in the concerned departments to find the remedies.
3. A team of faculty members meets the personalities in the industries about the solution for the identified problems in their industries.
4. The team from our college submits the proposal to the funding agency in collaboration with the industry to solve the identified problems.

❖ **Administration**

It mainly Consists of

- Board Of Governor's
- Building and Works Committee
- Finance Committee
- Principal
- Heads of Departments
- Central Functionaries
- Administrative Officers
- Administrative Staff
- Webteam

Main functions are

1. Takes care of student scholarships like first graduate, S.C, S.T M.B.C scholarships.
2. Maintains the Faculty Member leave records like casual leave, vacation, on duty & permission.

3. Acts as a Coordinator for all the activities relating to the maintenance of the College. 4. Takes care of HR policies of the institution side and outside the College. 5. Conducts Interview as per HODs requirement with College constituted selection committee support. 6. Takes care of all admission approval procedure and communicating with universities in person.
❖ Finance and Accounts <ol style="list-style-type: none"> 1. Student's yearly fee structure and managing fee collection and balances. 2. Managing assets and all applicable accounting info.
❖ Student Admission and Support <ul style="list-style-type: none"> • Displaying of students achievements, Implant –training, Industry specific software training courses, placement training etc.
❖ Examination <ol style="list-style-type: none"> 1. Conducting the examinations as per the guidelines laid down by JNTUK University for University Examinations. 2. Preparation of Invigilation list, QP & seating plan for University Exams 3. Monitoring uploading of attendance and Internal Marks as per the requirement of JNTUK. 4. Maintain Result Analysis, Rank List of all UG 5. Plan, prepare and conduct the practical examinations as per schedule. 6. Provide the hospitality for internal and external examiners during the JNTUK University examinations.

6.3 Faculty Empowerment Strategies

6.3.1 Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2017-18	Dr.B.Bhanu Prakash	International conference on innovative computing & informatics(ICICI-2017)	IEEE	4000
2017-18	Mr.B.Ramesh	A five day workshop on Big data		2000
2017-18	Mr.M.Srikanth Yadav	A five day workshop on Cloud Computing		2000
2017-18	Mr.P.Naga Babu	A five day workshop on Big data		2000

2017-18	Ms.D.Komali	A five day workshop on Cloud Computing		2000
2017-18	Mr.T.Narendrababu	A five day workshop on Big data		2000
2017-18	Mrs.K.Gayatri	A five day workshop on Cloud Computing		2000
2017-18	Mrs.P.N.Varalakshmi K	A five day workshop on Cloud Computing		2000
2017-18	Mr.M.Chennakesavarao	A five day workshop on Big data		2000
2017-18	Mr.M.Srikanth	A five day workshop on Cloud Computing		2000
2017-18	Mr.S.Anil Kumar	A five day workshop on Big data		2000
2017-18	Ms.Sk. Shahida	A five day workshop on Cloud Computing		2000

6.3.2 Number of professional development / administrative training programmes organized by the College for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	Dates (from-to)	No. Of participants (Teaching staff)	No. Of participants (Non-teaching staff)
2017-18	Google Android Development		14-09-2017 to 16-09-2017	18	
2017-18		Awareness Program on MS-Office	10-10-2017 to 12-10-2017		20

6.3.3 No. Of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	Date and Duration (from – to)
Experimental advent through Big data Analytics with IOT	46	2 nd to 3 rd June 2017

6.3.4 Faculty and Staff recruitment (no. For permanent/fulltime recruitment):

Teaching		Non-teaching	
Permanent	Fulltime	Permanent	Fulltime/temporary
114	Full time	75	Fulltime

6.3.5 Welfare schemes for

Teaching	• Medical concession at the prescribed corporate hospitals
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	<ul style="list-style-type: none"> • Free Transport from various Places. • Employees who complete more than 10 years of service are honoured. • Tuition fee waiver for the wards of the staff. • Maternity leave those who are completed 3 years in the Institution • EPF • A group insurance scheme has been started
Non teaching	<ul style="list-style-type: none"> • Staff welfare fund • EPF • Maternity leave • Free Transport facility • Free Hospital facility • A group insurance scheme has been started
Students	<ul style="list-style-type: none"> • For students admitted under the sports quota and below poverty line, the academic fees as well as accommodation fees are waived. • Students securing 100% attendance in an academic year are given a concession of Rs.5000/- in the fees collected for the next academic year. • A group insurance scheme has been started for the students • Sponsorship is given to students to present their papers at both the national and international level. • The college has arranged Skill Development Programs with AP CM's Skill Development centre. • Free transport and Hospital for poor students

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

(with in 100 words each)

- Experienced and efficient personnel conduct internal audit once in a 43semester.
- External audits are done by Proficient financial auditors
- In the Audits, Experts verify all transactions.
- There were no major observations noticed and the reports of the same are available.

6.4.2 Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies/ individuals	Funds/ Grants received in Rs.	Purpose
Tirumala Engineering College	Rs.50000	Workshop
Tirumala Engineering College	Rs.35,000	Orientation Program
Tirumala Engineering College	Rs.75,000	Faculty Development program

6.4.2 Total corpus fund generated : **25 Lacks**

6.5 Internal Quality Assurance System

6.5.1 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	ISO / NBA	Yes	Faculty members / Committee
Administrative	Yes	ISO / NBA	Yes	TUV / Committee

6.5.2 Activities and support from the Parent – Teacher Association (at least three)

1. The management arranges for a parent – teachers meet once in a semester during a weekend. The

<p>parents are identified and invited by faculty advisors of all the departments. Student's academic performance, university results, attendance and other related issues are discussed.</p> <ol style="list-style-type: none"> It helps to foster and promote good relationship among faculty, staff, student with parents to promote social development. It helps to create keen interest for the smooth functioning of the institute. It helps to understand the diversified need of the students belonging to different backgrounds. 				
6.5.3 Development programmes for support staff (at least three)				
For the supportive staff at college level Training programmes on computer applications, filing, accounts etc., are organized periodically when the new version softwares are Installed in MIS.				
6.5.4 Post Accreditation initiative(s) (mention at least three)				
<ol style="list-style-type: none"> Students are encouraged for student's internship programs. Quality research and patents improvement has been addressed. ISO Up gradation NBA for few More Departments Centre of Excellences TCS accreditation 				
6.5.5				
a. Submission of Data for AISHE portal : Yes b. Participation in NIRF : Yes c. ISO Certification : Yes d. NBA or any other quality audit : Yes				
6.5.6 Number of Quality Initiatives undertaken during the year				
Year	Name of quality initiative by IQAC	Date of conducting activity	Duration (from-----to-----)	Number of participants
2018	Training program for New procedures ISO 9001-2015.	03.02.2018	1 day	18
2017	Faculty Induction Program	16.06.2017	2 days (16.6.17 to 17.6.17)	30
2017	Two Day Faculty Development Program On "Experimental Advent Through Big Data Analytics With Iot	02 nd June 2017	02 nd and 03 rd June 2017	40
2017	Organized A Three Day Workshop on "Google Android Developer Fundamentals	14 th September 2017	September 14 th _ 16 th , 2017	120
2017	Guest Lecture on "Ethical Hacking & Digital Marketing"	21/12/2017	21/12/2017	185
2017	Guest Lecture on "Career Opportunities"	23/12/2017.	23/12/2017	100

CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES						
7.1 – Institutional Values and Social Responsibilities						
7.1.1 Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)						
Title of the programme		Period (from-to)		Participants		
				Female	Male	
National Women’s Parliament		10-02-2017 to 11-02-2017		5		
Women’s day celebrations		8.3.2018		123	60	
Avarthan		22-12-2017 to 23-12-2017		180	40	
Engineers Day		15.09.2017		300	212	
Teachers day		5.9.2017		30	84	
7.1.2 Environmental Consciousness and Sustainability/Alternate Energy initiatives such as: Percentage of power requirement of the College met by the renewable energy sources						
Renewable energy sources (RES) have significant potential to contribute to the economic, social and environmental energy sustainability of Engineering college. It improve access to energy for most of the departments.Tirumala Engineering College has taken step to install Renewable energy source which has an capacity of 110 kw Power to supply entire Institution. RO plant, Solar Water Heater, Reverse Osmosis water facility are installed in college and hostels for sufficient clean water supply and power backups are in place for use during power failure emergencies.						
7.1.3 Differently abled (Divyangjan) friendliness						
Items Facilities		Yes/No		No. of Beneficiaries		
Physical facilities		Yes		10		
Provision for lift		Yes		2		
Ramp/ Rails		Yes		1		
Braille Software/facilities		NO		-		
Rest Rooms		Yes		40		
Scribes for examination		NO		-		
Special skill development for differently abled students		NO		-		
Any other similar facility		--		--		
7.1.4 Inclusion and Situatedness						
Enlist most important initiatives taken to address locational advantages and disadvantages during the year						
Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date and duration of the initiative	Name of the initiative	Issues addressed	Number of participating students and staff
2017	2	3	August 21	Rural students learning	Educating Rural Students in this location	20
2018	1	1	17th March 2018	Awareness on Road Safety.	Two wheeler Accidents happening.	350 students, 150 staff

					Rash driving, billion riding, over speeding	
2018	1	1	20th March 2018	Awareness on Wearing Helmet	Fatal incidents due to head injury	350 students, 150 staff

7.1.5 Human Values and Professional Ethics

Code of conduct (handbooks) for various stakeholders

Title	Date of Publication	Follow up (maximum 100 words each)
College Brochure	June 2017	Rules and Regulation for Students. Anti-Ragging. Disciplinary Rules.

7.1.6 Activities conducted for promotion of universal Values and Ethics

Activity	Duration (from-----to-----)	Number of participants
Project Expo TEC contest-18	10.2.2018 to 12.2.2018	60

7.1.7 Initiatives taken by the institution to make the campus eco-friendly (at least five)

- Green Campus
- Waste water Management/ Rainwater harvesting
- Use of Renewable Energy
- Digital Library and E Learning Centre
- creation activities like - interdepartmental as well as intercollegiate cultural contests, seminars and talks

7.2 Best Practices

Describe at least two institutional best practices

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

1.Monthly Performance Report

➤ Goal

To Enhance efficient monitoring of the departmental activities

➤ The Context

The scheduling and the delivering of the curriculum has to be addressed in a comprehensive manner. Since most of the programmes cover subjects of other departments a close monitoring from the top authority . This would easily put checks and balances over the process system. Right from the student performance, the teacher functionality and the continual improvements in the infrastructure are reflected in the Monthly Performance Report.

The Practice

- Every month Monthly Performance Report Performa is forwarded to each HOD
- Consolidated statements of attendance of the students are prepared by the college office every month.
- Filled up Monthly Performance Report is forwarded to the principal before the 5 th of every month
- Corrective measures if required are initiated

Evidence of Success

- Timely completion of scheduled work by teachers according to the Teaching Plan
- Teachers started compensating lost days/hours
- Use of Digital/ repository facilities

2. Conducting Bridge Courses at the beginning of the semester, Remedial classes for slow learners and additional support for toppers.

Other Best Practices

- The day starts with 'Vandemataram' at 8:55 A.M and ends with 'Janaganamana' at 4:30 P.M
- Celebration of August 15th and Jan-26th without fail.
- Prohibition of cell phones in the campus.
- Discouraging two wheelers in the campus for students.
- Motivation towards Sports & Games for all.
- Induction programme by 'Art of living' every year.
- Campus is under electronic surveillance.
- Utilization of Non-Conventional Energy Sources (Solar) for total campus.
- Inculcating Communication in English in the campus.
- Encouraging faculty, technicians and students through various awards.
- Organic vegetation in campus.
- Attaining of Ragging-Free Campus through counselling
- Effective counselling & Mentoring system for every student.
- Encouragement towards academics.
- Regular yoga & meditation classes.
- Encouragement towards co-curricular & extra-curricular activities.
- Regular Parent-Teacher Meet.
- Frequent interaction by industrial expert.
- Thought provoking quotes in the campus.
- Recreation Classes & Faculty Development Programmes.

7.3 Institutional Distinctiveness

Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust

Provide the weblink of the institution in not more than 500 words

1.Skill Development Cell.

The Institution has set up Skill Development cell to improve the learning outcomes and through projects. Bridge Courses are arranged for first year students and lateral entry students are conducted regularly. Pedagogical Initiatives has been taken through various methodologies like experimental learning, model making, NPTEL videos etc. Value Added Courses are conducted for all students.

2.Placement Cell

The Placement Department, maintains a very close Interaction and Coordination with Industries to assess Career Opportunities for our Students. Apart from Networking, Communications, Correspondence and Personal Meetings, well organised Campaigns are held to project our Strengths and create job opportunities.

In a Structured Manner, Resumes are Prepared in Electronic format and in conventional Forms and kept ready in Order to make them available for General and Specific Needs of the Industries. Through several preparations, including Group Discussions and Mock Interviews, students are enabled to present themselves successfully in the Campus Interviews.

8. Future Plans of action for next academic year (500 words)

1. Faculty members and students are motivated to publish research papers(Inter-discipline area)
2. Accreditation for some other Departments
3. Enhancement of Curriculum
4. Train the students in upcoming technologies to meet industry expectations
5. Research Funding from various funding agencies
6. Strengthening the industry institute interaction by conducting various events such as guest lectures, industrial visit, workshop and faculty development programmes.

Name _____

Name _____

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

Annexure I

Abbreviations:

CAS	-	Career Advancement Scheme
CAT	-	Common Admission Test
CBCS	-	Choice Based Credit System
CE	-	Centre for Excellence
COP	-	Career Oriented Programme
CPE	-	College with Potential for Excellence
DPE	-	Department with Potential for Excellence
GATE	-	Graduate Aptitude Test
NET	-	National Eligibility Test
PEI	-	Physical Education Institution
SAP	-	Special Assistance Programme
SF	-	Self Financing
SLET	-	State Level Eligibility Test
TEI	-	Teacher Education Institution

For Communication with NAAC

The Director

National Assessment and Accreditation Council (NAAC)

(An Autonomous Institution of the University Grants Commission)

P. O. Box. No. 1075, Nagarbhavi

Bengaluru - 560 072

Phone: +91-80-2321 0261/62/63/64/65

Fax: +91-80-2321 0268, 2321 0270

E-mail: director.naac@gmail.com

Website: www.naac.gov.in