Self-Study Report (SSR)

Submitted to

National Accreditation Assessment Council (NAAC)

by

TKR COLLEGE OF ENGINEERING & TECHNOLOGY

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Medbowli, Meerpet, Saroornagar Mandal, R.R.Dist. Telangana - 500 097
Phone: 040-65347536
E-mail: principal@tkrcet.ac.in,
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PART A: PREFACE

TKR College of Engineering & Technology, established in the year 2002, has been sponsored by TKR Educational Society, Medbowli, Meerpet, Hyderabad, Telangana. It is recognized by AICTE and approved by the State Govt. now Telangana, permanently affiliated to Jawaharlal Nehru Technological University Hyderabad (JNTUH). UGC recognition under Sections 2(f) and 12 (B) further strengthens over cause of quality education. This Professional college has been established with a cherished vision to provide quality education and to be among the best of the institutions for the budding engineers and technologists. With added emphasis on attitudes, skills and knowledge it has become the epicenter of creative solutions to scores of students from varied backgrounds.

The College proudly offers 6 UG and 3 PG programmes in Engineering, a Professional Course in MBA and 5 programmes in Diploma Course. With 15years of rich standing in the educational era, TKR College of Engineering & Technology has an excellent track record which is evidenced across holding accreditation by NBA in 2008 for 3 years and Re-accreditation for 2 years in 2015, and subsequently extended for one more year. This Institution has the distinction of being one among the Top 10 Ranking and Reckoning Institutes of choice and preference for the aspiring students.

The College is very pleased to submit the Self Study Report (SSR) for accreditation. In all modesty, TKR College of Engineering & Technology presents itself for quality inspection to serve the stake holders better in future by getting accredited. The SSR has been prepared as per the norms set by NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC) and gives an insight into our Vision and Mission.

PART B: EXECUTIVE SUMMARY OF THE INSTITUTION

TKR College of Engineering & Technology was established in the year 2002 and is affiliated to JNTUH, Hyderabad. The institute is accredited by NBA for the first time in 2008 for a period of three years. The programmes that were accredited are EEE, ECE, CSE and BT. It is re-accredited by NBA in June 2015 for a period of two years and later extended to one more year. The programmes that were accredited are EEE, MECH, ECE and CSE. The process of recognition by UGC under Section 2(f) & 12 B of the UGC Act, 1956 is awaiting a formal approval. The institute was established with a well-defined motive of serving the Society by making a humble contribution to 'education' especially through Technical Education. The Institution is situated in serene and natural surroundings at Meerpet, near LB nagar, Hyderabad. It is situated near the Shamshabad highway (Inner ring road). The institute offers Civil Engineering, Electrical & Electronics Engineering, Mechanical Engineering, Electronics and Communication Engineering, Computer Science & Engineering, Information Technology and also MBA programme. These courses are approved by AICTE, and the University (JNTUH) to which the institute is affiliated permanently.

The Institution follows the norms and decisions as per the regulatory bodies - JNTUH University as well as AICTE for the required physical infrastructure, recruitment of the faculty, admission procedure, fee structure and curriculum.

TKR College of Engineering & Technology is a self-contained campus comprising of everything that students on campus require and it has total building space of 3,27,100 Square feet.

Away from the hustle-bustle of the city life and yet nearer to the city and in terms of transport etc., the institute is spread over an area of 10 Acres of lush greenness. The institute is developed on par with international standards with excellent infrastructural facilities of multi-storied buildings, state-of-the-art laboratories, exhaustive e-enabled digital libraries, extensive day and night playgrounds, comfortable hostels, hygienic canteens, uninterrupted power supply, Wi-Fi Net connectivity, auditoriums, reprographic facilities etc., The Institution's

prime ambition is to get acknowledged as a premier institution with a difference and an island of excellence. The difference is being created by providing conducive environment to teaching, learning, research and innovation, full autonomy to the teacher and the students to realize their maximum potential and actualization with novel ideas, Information and Communication Technology (ICT) and value imbibed academic practices.

The Board of Governors, academic and administrative bodies, various committees of the institution and the students of all Departments are whole heartedly rendering their services for realizing this mammoth ambition.

Strengths:

➢ The Institute has more than 400 faculty members and a majority of them are Post Graduates and 21 of them are Doctorates. The institute actively encourages our faculty to take up research work along with necessary incentives.

➢ The Institute has good infrastructure with well quipped laboratories.

➢ Qualified and well educated management with broad vision for academic excellence.

➢ Reputed among 250 engineering colleges affiliated with JNTUH and preferred by students aspiring to join engineering.

The Institute has good liaison with research organizations and industries. Memorandum of Understanding (MoU) with different Companies is as follows:

1. We have a MoU with SVS Hydraulics, An ISO 9001-2008 Company, Balanagar, Hyderabad-500037. They already contributed Rs. 6.5 lakhs worth of machinery Hydraulic powered, materials test biaxial tensile testing machine. In a reciprocating gesture we offered our expertise in fiber reinforced plastics technology and supporting to pursue research on the area of stress analysis accelerated AG-ING analysis of pull-truded products and SMC products. Pull-truded rebars and their characterizations as related areas. Analyzing this as one of thrust area, Research activities is abundant, a couple of Ph.D. thesis work can be produced. We are using the said material for enhancement of quality in improving

the respective products.

2. We have a MoU with Andromeda Energy Technologies Pvt. Ltd. It is an ISO 9001-2008 Certified Company. A Project by title "Automated Solar Power Wheel-Chair" is developed, this project is undertaken under the close guidance of EEE Department. The address of the company Factory D-72 Phase I-IDA Jeedimetla Hyderabad- 500055.

3. Battery bikes Industry Pvt. Ltd. 24-92/3, LN Nagar, IDA Uppal, Hyderabad - 500039, developed a MoU with our Institute.

4. Mavin value Creations- Software Solutions Pvt. Ltd, Saroor nagar, RR Dist., Hyderabad, also developed a MoU with Department of CSE, TKRCET. An Automation of Educational Practices is the major project in collaboration with CSE and IT Departments of this Institute. This initiative is quite useful for our B.Tech, M.Tech Students as well as Research Scholars.

5. We also have a DST- SERB project offered by Department of Science & Technology Govt. of India, worth 17.04 lakhs for 3 years was sanctioned to our institute. The Principal Investigator of the project is Dr. B. RAJINI KANTH, Professor and HOD, H&S Department. Major equipment sanctioned in the project were purchased. These equipment are not only useful for students but also to research scholars and any academician in this field. The main objectives of the project work are:

    i) To develop an apparatus for measurement of MFIS in external magnetic field.

    ii) To optimize sample preparation in order to find good samples for MFIS

    iii) To measure MFIS under various external conditions, temperature and Stress

Keeping the above indicated parameters in mind a series of CoNiAl FSMAs were made and characterized them with analytical and spectroscopic technologies (XRD, DSC, Resistivity and magnetization measurements). Currently, still the project is going on.

➢ The Institute gets research funding from various agencies. Faculty and

students of the Institute are engaged in research projects in the area of Wireless Network Security, Speech Processing, Thermodynamics, Refrigeration Engineering, Drivers, Image Processing, Data mining, Artificial Intelligence & Machine Learning.

➢ Recent past a grant of Rs. 13 lakhs was funded by AICTE to modernize our labs.

➢ Students of the Institute score good ranks in the University Examination.

➢ The Institute Laboratories are recognized by Scientific & Industrial Research Organization (SIRO).

➢ The Institute faculty and students bagged prizes and excelled in paper presentation, project competitions. Recently our institute got second prize in Robotics competitions held at IIT Delhi. Students of Department of Mechanical Engineering won 2nd Position in the Robo-Zest'15, the largest Robotics Workshops Series cum Championship conducted by Robo Species Technologies Pvt. Ltd. and organized by IIT Delhi. About 800 colleges took part from 6 countries: Japan, Nepal, Bangladesh, UAE, Pakistan and India.

➢ The Institute gets funds from AICTE and other allied bodies.

➢ One of the strongest organs of the Institution is Training & Placement center. This center caters to the needs of students who are the potential candidates seeking a job in the outside world for their fruitful careers. Our placement team works round the year to ensure successful and respectable placements with esteemed organizations. The training and placement cell helps to improve the soft skills of students and 57 Companies conducted campus recruitments.

➢ The Institute regularly organizes National Conferences, Symposiums, Workshops, and Faculty Development Programs for researchers and faculty members as well as students. Apart from these, some non-technical activities are also organized. We encourage the networking of undergraduate and postgraduate students with industry and academics.

➢ The other facilities in the institute are Auditorium, Canteen, Computer Center, Transport system Bank and ATM. TKRCET also has a comfortable air-

conditioned auditorium with a seating capacity for 500 students. Hygienic, nutritive and quality food with subsidized rates is served in the canteen. A fleet of 10 Buses are available in the institute for students and staff from nook and corner of the city to the institute.

➢ **The Institute has well developed digital library which has access to e-books, National and International Journals.**

The details are as follows:

LIBRARY COLLECTION

Total No. of Volumes :		59,677
Total No. of Titles	:	6,670
Engineering Books	:	56,443
MBA Books	:	4,567
Diploma Books	:	5,804
Welfare Books	:	953
IEG Books	:	197
Digital Library with Internet facility: 60		

SUBSCRIBED JOURNALS FOR THE YEAR 2015-16:

Technical Printed National Journals	:	219
International Journals IEEE	:	208
(INDEST –AICTE Consortia)		
Emerald Management Online Journals	:	120
Bentham Science Collection	:	30
General Magazines	:	44
Newspapers (All English & Local Newspapers):		12
Seating Capacity	:	400
Area	:	1510 sq. mts
Budget	:	Rs.30 lakhs/year

➢ The faculty and students of this Institute are members of professional bodies like ISTE, IETE, IEEE, and CSI. These Professional bodies are governed by the student chapters whose objective is to regularly arrange

seminars/conferences etc., including activities like Paper Presentations, Project Competitions, Industrial visits, etc.

➢ The Institute has National Social Service (NSS) Unit. It carries out social activities like blood donation camps, education to rural students and health camps. The Institute regularly organizes a two week NSS Camp in rural areas. The students participated in the camp and carried out the distribution of Aadhar Cards, Cleanliness drives in villages. Every year Blood Donation Camps are held.

➢ Faculty are regularly encouraged and are given opportunities to do higher studies, research and Ph.D.

➢ CRT cell established by the institute creates a platform for students where they regularly get exposed to various personality development programs and training sessions beyond the classroom.

EXAMINATION BRANCH:

TKRCET has been an Exam center for various state and central competitive exams both offline/online. The Exam branch has an exclusive broadband facility for downloading encrypted question papers from university according to the timings (Decrypted password will be available only 10 minutes before the exam) through secure channel done by the Chief Superintendent of the examination confidentially. Virtual private network is used for establishing secure connection between JNTU Exam Cell and TKRCET Exam Branch. The exam branch is equipped with

➢ Well planned Infrastructure

➢ 3 High speed copying machines

➢ 1 very High speed/180 PP copying machine

➢ 3 laser printers

➢ 2 scanners

➢ 12 computers (Exclusive)

➢ 1 Record room

➢ 1 Stock room

- 1 Confidential room

- 1 Evaluation room

There is a Single entrance provision through the Principal Office for counter circulation with staff of 10 members. The Exam branch staff has meticulous stern eye on the proceedings of all Internal and External examinations for smooth functioning. The Exam branch of TKRCET also serves as the exam center for JNTUH semester exams as per university rules.

An exclusive spacious floor of 6,500 sq.ft. is being built for Exam Branch in new upcoming building in the campus with high speed, well equipped computers, Xerox facility, scanners, printers etc., for smooth function of examination procedures which is required for an Autonomous Institution.

Sports:

TKRCET encourages sports and games explicitly for overall development of the student. A sprawling green cricket ground caters the purpose. The playground is available for different sports. Day and night National/International semi-final and final cricket matches of various leagues are conducted.

Mr. Ashwat Reddy, student of B.Tech III year from Computer Science & Engineering department was selected for under-19 Indian team, which visited Australia for cricket match.

Gymnasium:

A well modern equipped Gymnasium with 23 work stations are available at campus during 6am to 8am and 5pm to 8pm every-day to encourage the workouts for better health consciousness.

Weaknesses:

According to NASSCOM and many other agencies there is a lot of gap between what the industries wants and the present syllabus prescribed in our universities. So our fresh graduates are not 'industry ready'. Many top companies give specialized training to them after they are recruited there by wasting valuable time in their progress. We desperately want to bridge this gap as it not only provides excellent job opportunities to our students but also helps the Indian economy, society, industry in general and the technical industry in particular. Our faculty is quite competent to even offer short term certification programmes along with main stream courses, which will be a great asset to our institute if we get full

autonomy.

Non-autonomy of the institute is a major constraint in the curricular reforms. Consequently, the present courses are being run as per the prescribed syllabus of JNTUH. For example, the following areas namely Cloud Computing, Big Data, Ethical Hacking, Cryptography, Net, Apps, Software, etc., need to be introduced to meet the industry needs of IT sector. Our faculty developed some innovative courses in soft skills and other such important areas after regular interaction with the industry representatives, but these cannot be included in the regular syllabi. Also, the present almanac does not possess the scope for short-term certification programmes offered as special programmes so as to make students industry- ready. Also, this aspect of non-autonomy is hindering our growth.

JNTUH delayed the MBA results for the academic year 2015 and at the same time Osmania University declared its results on time. So this has resulted in less admissions in our MBA programme. So autonomy for our institute will solve this problem in a mutually beneficial manner.

The admission process for B.Tech I year gets delayed every year due to EAMCET (ex: Agriculture, Engineering & Medical Entrance Test) process and procedures. The academic calendar is different for I year and for II, III & IV years, MBA, MCA, and M.Tech programmes. This causes inconvenience to faculty and students in undertaking academic activities like seminars, conferences, educational tours etc.

Opportunities:
➢ The Institute has young and dynamic faculty who have good potential to excel in all aspects of academics like teaching, organizing National/International level seminars, FDP and many others**.**
➢ Faculty pursues Ph.D. in without academic and family disruption.
➢ Develop technical and academic expertise in new fields.
➢ Location advantage for Institute- industry tie-ups for project works, consultancy, training and placement.
➢ The Institute, which is a part of a major group of institutions, is imparting education in the field of Civil Engineering, Electrical & Electronics

Engineering, Mechanical Engineering, Electronics and Communication Engineering, Computer Science & Engineering and Information Technology.

➢ R & D projects Industry Sponsored.

Challenges:

➢ The Institute has a challenge to introduce appropriate new programs to meet the growing demands of stake holders.

➢ Rural Students - one of the major challenges encountered by the institute is its students who hail from the surrounding villages. Though the institute is continuously upgrading the quality, it is unable to address the needs of the rural students due to their low standards.

➢ Fee re-imbursement scheme and its problems.

➢ Premier institutes like IIT, IIIT, and BITS in Hyderabad city.

➢ A very good no. of engineering colleges beyond the requirement.

PART C: INSTITUTIONAL PROFILE

1. Name of the College

Name :	TKR College of Engineering & Technology
Address :	Survey No: 8/A, Emboli, Meer pet, Saroornagar Mandal,
City	Hyderabad - 500097
State	Telangana.
Website :	www. tkrcet.ac.in

2. For Communication

Designation	Name	Telephone with STD	Mobile	Fax	Email
Principal	Dr. D.V.Ravi Shankar	O:040-65587536	96665 73666	040-24094567	info@tkrcet.ac.in
Vice Principal	Dr.D.Nageshwar Rao	O:040-6558753	84980 85215	040-24094567	ecedepttkr@gmail.com
Steering Committee Coordinator	Dr. A. Suresh Rao	O:040-65587536	84980 85216	040-24094567	cse123tkrcet@gmail.com

3. Status of the Institution:

Affiliation of the College: Permanent **(ANNEXURE I)**

4. Type of Institution:

a. **By Gender:** Co-education **b. By Shift:** Regular

5. Sources of funding: Self-financing

6. a. Date of establishment of the college:27/05/2002

b. **University to which the college is affiliated /or which governs the college (If it is a constituent college)**: Jawaharlal Nehru Technological University

c. **Details of UGC recognition:**

Under Section	Date, Month & Year
i. 2 (f)	27-01-2016
ii. 12 (B)	27-01-2016

The Certificate of recognition u/s 2 (f) and 12 (B) of the UGC Act is enclosed in **ANNEXURE1I**

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section/ clause	Recognition/Approval details Institution/Department Programme	(dd-mm-yyyy)	Validity	Remarks
i.	AICTE	07/04/2016	1 year	Civil, EEE, M.E, ECE, CSE, IT.
ii.	NBA	01/07/2015	3years	EEE, M.E, ECE & CSE

The recognition/approval letter is enclosed in **ANNEXURE III & IV**

7. **Does the affiliating university Act provide for conferment of autonomy (As recognized by the UGC), on its affiliated colleges?** NO

   If NO has the College applied for availing the autonomous status? YES

8. **Is the college recognized by UGC as a College with Potential for Excellence (CPE)?** NO

9. **Location of the campus and area in sq.mts:**

Location *	Urban
Campus area in sq. mts.	10 acres
Built up area in sq. mts.	41817

   (* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

10. **Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.**

➢ Auditorium/seminar complex with infrastructural facilities : **YES**

➢ Sports facilities : **YES**

➢ Playground : **YES**

➢ Swimming pool : **NO**

➢ gymnasium : **YES**

➢ Hostel : **YES**

➢ Boys hostel : **YES**

Number of hostels: **02**

Number of inmates: **200**

➢ Girls hostel

Number of hostels: **02**

Number of inmates: **600**

➢ Residential facilities for teaching and non-teaching staff : **NO**

➢ Cafeteria : **YES**

➢ Health center : **YES**

➢ First aid, Inpatient, Outpatient, Emergency Care facility, Ambulance : **YES**

➢ Health center staff

Qualified doctor Full time : **YES**

Qualified Nurse Full time : **YES**

➢ Facilities like banking, post office, book shops : **YES**

➢ Transport to cater to the needs of students and staff : **YES**

➢ Animal house Biological waste disposal : **YES**

➢ Generator or other facility for Regulation of electricity and voltage : **YES**

➢ Solid waste management facility : **YES**

➢ Waste water management : **YES**

➢ Water harvesting : **YES**

11. **Details of programmes offered by the college (Give data for current academic Year (2016- 17)**

SI. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
1	Under-Graduate	B. Tech	4 Years	Intermediate	English	960	
2	Post-Graduate	M. Tech	2 Years	B. Tech	English	114	
3	UG Diploma	Polytechnic	3 Years	SSC	English	480	480

12. **Does the college offer self-financed programmes?** YES

13. New programmes introduced in the college during the last five years if any?

SI.No.	Programme Level	Name of the Programme/ Course	Year of Introduction
1	Post-Graduate	Software Engineering	2011-12
2	Post-Graduate	Structural Engineering	2013-14
3	Post-Graduate	Electrical Power Systems	2014-15

14. Number of Programmes offered under course like DIPLOMA/B.TECH /M.TECH.)

    a) Annual system   **NOT APPLICABLE**

    b) Semester system   **YES**

    c) Trimester system   **NOT APPLICABLE**

15 Number of Programmes with

    a) Choice Based Credit System   **02**

    b) Inter/Multidisciplinary Approach   **NOT APPLICABLE**

    c) Any other (specify and provide details) **NOT APPLICABLE**

16. Number of Teaching and Non- Teaching Positions in College

Positions	Teaching faculty						Non-Teching Staff		Technical Staff	
	Professor		Associate Professor		Assistant Professor					
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC/University/ State Government Recruited	18	2	18	14	123	118	15	26	32	20
Sanctioned by the Management/ Society or other authorized bodies Recruited	18	2	20	14	123	118	15	32	32	20
Yes to recruit	00	00	00	00	00	00	00	00	00	00

17. Qualifications of the teaching staff

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	-	-	-	-	-	-	
Ph.D.	18	2	-	-	-	-	20
M. Phil.	-	-	-	-	-	-	
PG	02	1	16	13	123	118	273

18. Furnish the number of the students admitted to the college during the last four academic years.

Categories	Year 1		Year 2		Year 3		Year 4	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	49	21	66	24	58	20	71	23
ST	24	5	33	11	27	15	23	7
OBC	257	104	229	101	214	114	238	127
General	140	29	174	109	228	142	149	104
Others	38	35	28	7	19	7	21	12

19. Details on students enrollment in the college during the current academic year

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	3319	111	Not Applicable	Not Applicable	3430
Students from other states of India	12	2	Not Applicable	Not Applicable	14
NRI students	-	-	Not Applicable	Not Applicable	-
Foreign students	-	-	Not Applicable	Not Applicable	-
Total	**3331**	**113**	-	-	3444

20. Dropout rate in UG and PG (average of the last two batches)

       UG - **.05%**

       PG - **Nil**

21. **Unit Cost of Education**

  (a) Including the salary component -   **Rs.39, 308**

  (b)Excluding the salary component -   **Rs.4, 501**

22. **Provide Teacher –student ration for each of the programme/course**

     offered in the College applying for Accreditation cycle

Cycle 1

S.no.	Name of Programme	Student-teacher ratio
01	B.Tech CSE	1:15
02	B.Tech EEE	1:15
03	B.Tech ECE	1:15
04	B.Tech BT	1:15

Cycle 2

S.no.	Name of Programme	Student-teacher ratio
01	B.Tech CSE	1:15
02	B.Tech EEE	1:15
03	B.Tech ECE	1:15
04	B.Tech MECH	1:15

23. **Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment Only)**

Cycle 1: 19th July 2008 AccreditationOutcome/Result- 4 branches EEE, ECE,
     CSE, BT.

Cycle 2: 23rd March 2015 AccreditationOutcome/Result-4branchesEEE, MECH,
     ECE, CSE Valid up to June 30th 2018 **(ANNEXURE III)**

24. Number of working days during the last academic year : **162**

25. Number of teaching days during the last academic year: **96**

26. Date of establishment of Internal Quality Assurance Cell (IQAC): **18/02/2104**

PART D: CRITERIA WISE INPUTS

CRITERIA I

CURRICULAR ASPECTS

1.1 Curriculum Planning and Implementation

1.1.1 State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stakeholders.

The TKR Educational Society aims to impart world class technologies through its Institute. TKR College of Engineering & Technology is constituted based on the following objectives.

OBJECTIVES:

➢ To meet the needs of the society with analytical skills.

➢ To enhance the employability and leadership skills among the students.

➢ To support higher education with quality teaching and put forward the real Passion in subject Teaching – Learning environment.

➢ To manifest the leadership qualities, management and administrative skills of the faculty and staff and

➢ To encourage Collaborative learning systems, process and culture.

VISION:

The Institution endeavors towards imparting quality education with ethical values and strives to make students technically competent to reach heights and make our nation self-reliant and globally recognized.

MISSION:

The Institution is committed and dedicated to mould the students into quality Engineers and technologists with aplomb by providing world-class scientific and technical education through:

➢ Ensuring Excellent branch wise Infrastructural facilities, with eminent and

➢ Qualified faculty.

➢ Making the Institute a research/resource center to enhance scope for consultancy and R & D.

Communication to the students, teachers, staff and other stakeholders is as follows:

Institute takes every measure to ensure that the above objectives are effectively imparted by defining Vision & Mission.

➢ The vision and mission of the TKR College of Engineering & Technology (TKRCET) is conveyed through the prospectus, display on the boards in the college to reach the concern goal which directs the Institute in a right path.

➢ The vision and mission of the college is displayed on the college website.

➢ The Vision and Mission statements are also communicated to the stakeholders, and statutory bodies undertaken by Government of India, AICTE (All India Council for Technical Education), Government of India, NBA (National Board of Accreditation), and affiliating university JNTUH (Jawaharlal Nehru Technological University Hyderabad).

1.1.2 How does the institution develop and deploy action plans for effective Implementation of the curriculum? Give details of the process and Substantiate through specific example(s).

The Institute meticulously develops action plan for effective implementation of the curriculum by planning the academic schedule as per the university Almanac. The action plan also includes the details like the topics to be taught and no. of working days allocated to the respective topics. The portion of syllabus is tested in by conducting mid-wise exams and end semester examinations in advance by conducting meetings with the heads of various departments to develop various strategies for effective implementation of the curriculum individually.

Accordingly, the heads of the department conduct their internal staff meetings and develop academic plans for the forth-coming academic year. The content and a lesson plan is made to meet the required working say schedule with reference to the affiliating university JNTUH academic calendar.

Teachers are encouraged to improvise better teaching-learning

method before to impart the curriculum through innovative teaching methods such as presentations, assignments, discussions, workshops, seminars, industrial visits, computer education etc., or other means apart from regular/traditional teaching methods and develop course file. Course file of respective subject should contain lesson plan, assignments, tutorials, previous question papers, lecture diary and lecture notes that are maintained by each faculty for the subjects taught by them. These course files are reviewed on continuous basis with previous result analysis and would be updated accordingly.

Also, the implementation of curriculum is monitored through various means, which include Student Representatives, Heads of the Departments, and Principal at regular intervals.

1.1.3 What type of support (procedural and practical) do the teachers receive from (university and/or institution) for effectively translating the curriculum and improving teaching practices?

At TKRCET, the faculty is always supported to improve their teaching-learning practices by encouraging them to participate in FDP/ Orientation/ Refresher Courses/ Workshops/ Seminars organized by the affiliating university, at other educational institutions for effectively transforming the knowledge inculcated in the curriculum designed and revised by the JNTU, Hyderabad.

In this digital age, teaching and learning process is made more attractive, innovative comparing to traditional view of teaching. In this regard TKRCET has implemented ICT methods. The digital classroom with new technology makes the learner/teacher tech savvy while using all modern teaching aids like LCD projectors, audio-video system, podium, furniture etc. The Institute subscribes various online resources like IEEE, Digital Library and DELNET. Faculty is encouraged to use the above online resources along with NPTEL videos for a better teaching-learning environment.

TKRCET conducts various SDP/FDP on various subjects for their Faculty and Technical staff. The institute invites the subject experts and industry people to train. The institute encourages the staff to publish

research papers in various reputed journals, participate in international and national seminars, conferences, workshops.

TKRCET also conducts various staff development programs in collaboration with other organizations like Wipro, TCS, and ICT.

1.1.4 **Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other statutory agency.**

Though the curriculum is designed and revised by JNTUH, TKRCET has taken up initiatives for effective curriculum delivery. The course files are being developed as per the policies adhered in implying the outcome based Education. The designing of the course file structure eases the student in understanding the course objectives and course outcomes.

In order to improve academic and employability percentage among students, the college imparts special remedial/training sessions. Also, a separate Student Faculty Interaction Period (SFIP) is allotted exclusively for the students for better interaction with the faculty to improve their subject knowledge.

1.1.5 **How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalization of the curriculum?**

The college has set up a Career guidance and Placement Cell which maintains professional relations with the representatives of industry. The Representatives of various companies are invited to the college campus to interact and guide the students and give valuable suggestions and tips regarding career development. To validate the process of teaching-learning students are directed to visit concerned industries to keep themselves abreast of the latest developments.

The Institute encourages interest among the faculty members to take up research in diversified fields holding their core competencies. Faculty members and the college officials have interaction with various research bodies and participate in various research projects. Some of the faculty hold membership for professional bodies like ISTE, IETE, Computer Society of India (CSI), and avail the opportunity to bridge the

gap in curriculum. The faculty members of this Institute interact with affiliating university and its constituent colleges to update themselves to imply latest trends. Also interaction with institutes of national importance and premier Institutes (IIT's) is made for up gradation.

1.1.6 **What are the contributions of the institution and/or its staff members to the development of the curriculum by the University?(number of staff members/departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.**

TKRCET conducts frequent meetings with industry experts, alumni, academic peers along with stakeholders and record their feedback on curriculum at Institute and Department level. The records are then communicated to the respective Boards of Studies, JNTUH. The curriculum is developed and reviewed by respective Boards of Studies under the direction of the Academic Council of JNTUH.

The modified curriculum are formally approved by the Academic Council after detailed deliberations and the minutes of the meetings are duly recorded.

1.1.7 **Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it? If 'yes', give details on the process ('Needs Assessment', design, development and planning) and the courses for which the curriculum has been developed.**

TKRCET strictly observes the academic calendar abiding the time schedule prescribed by JNTU-H in its Almanac. The syllabus framed by the affiliating university, is implemented. In line Teaching-Learning Methodology encourages the teacher and respects the freedom of subject discussion which give an extra mile of the syllabus (with time constraints). Also, the faculty encourages the innovative ideas of the students and based on significance the necessary topics are added to the context of syllabus prescribed.

1.1.8 How institution does analyses/ensure that the stated objectives of curriculum are achieved in the course of implementation?

The institution has established effective communication channels among all the stakeholders to ensure that the objectives of the curriculum are achieved in the course of its implementation. The evaluation system and student feedback design will ensure that the objectives of the program are achieved with par excellence. The objective of the course results in providing employability, smooth adaptation of our students into industry with subject knowledge where TKRCET has been striving for and has been the most preferred destination among the student committee. The institute conducts various examinations (Minor Mid -Term, Viva-Voce, and Semester end exams) as per schedule to monitor the learnt outcomes of the syllabus. The outcome ensures that the stated objectives of the curriculum are achieved during the course of implementation. The Academic council of the college monitors the activities of Academic Schedules and ensures the course objectives are met accordingly. The faculty members also hold the responsibility of counselors. Each Counselor is assigned a set of 20 students where counselor councils the student with respect to Academic Performance, Regularity, Technical activities and any other if necessary. Counselors take care of concern students and also counsel them regularly. Systematic documentation both with the Heads of departments and the office of the Academic Affairs is maintained to review the system performance and outcomes of the curriculum.

1.2 Academic Flexibility

1.2.1 Specifying the goals and objectives give details of the certificate/diploma/ skill development courses etc., offered by the institution.

Aiming with the vision and mission of the institute in nurturing and creating high caliber technologists with good attitudes, practical skills and knowledge. TKRCET offers the following Diploma, Undergraduate, Postgraduate courses.

Name of the Diploma Programme:

1. Civil Engineering
2. Computer Science and Engineering
3. Electronics and Communication Engineering
4. Electrical and Electronics Engineering and
5. Mechanical Engineering

Name of the Under Graduate Programme:

1. Civil Engineering
2. Computer Science and Engineering
3. Electronics and Communication Engineering
4. Electrical and Electronics Engineering
5. Information Technology and
6. Mechanical Engineering

Name of Post Graduate Program:

1. M.Tech (Computer Science Engineering)
2. M.Tech (Software Engineering)
3. M.Tech (Power Electronics)
4. Master Business Administration (MBA)

1.2.2 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability.

The College is affiliated to JNTUH and follows the curriculum and syllabus of the University. Each programme has a curriculum comprising of both theory and practical courses with well-defined syllabus. There are certain minimum number of core courses and sufficient number of elective courses to be opted by the students.

➢ **Range of Core /Elective options offered by the University and those opted by the college**

Range of Core courses:

1. English Communication Skills.
2. Environmental Science.
3. Disaster Management.
4. Management Science.

5. Gender sensitization.
6. Basic Sciences.
7. Basic Engineering.
8. Relevant Professional Subjects.
9. Inter-Disciplinary Subjects.
10. Core Elective Subjects.
11. Open Elective Subjects.

Elective Options:

B.Tech programme: Offers two Professional Electives in V, VI, and VII VIII semesters with four options under each elective. Also, an Open Elective

M.Tech programme: Offers two electives per semester (in semester I & II) with four options in each elective.

MBA programme : Offers four electives per semester.

Students have full freedom in selecting the electives. An expert staff member for the particular elective subject will be allotted. Subjective to the constraint of at least 40 percent of the enrollment of existing intake for any opted elective.

➢ **Choice Based Credit System and range of subject options**.

The courses are offered as per modules prepared by the Jawaharlal Nehru Technological University, Hyderabad.

➢ **Courses offered in modular form.**

Courses offered by JNTUH are provided unit wise and are arranged in the modular form. The modulus are taught and mid exams conducted in chunk wise to assess the continuous learning throughout the year.

➢ **Credit transfer and accumulation facility**.

No credit transfers and accumulative facility exists as per the admission procedure of state government.

➢ **Lateral and vertical mobility within and across programmes and courses**

Lateral mobility with in and across programmes and courses are

governed by Telangana State Council for Higher Education (TSCHE).

- ➢ **Enrichment course**

  Various Certifications and skill enrichment programmes are organized by departmental wise to enrich the knowledge based student community which could cater the needs of industry.

1.2.3 Does the institution offer self-financed programmes? If 'yes', list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

TKRCET is a self-financed institution and all the courses are run by Self supported schemes through screening test POLYCET, EAMCET, E-CET, I-CET & PGCET. The curriculum is designed by the affiliating University JNTUH. The faculty qualification and Salary norms are as per AICTE.

1.2.4 Does the college provide additional skill oriented programmes, relevant to regional and global employment markets? If 'yes' provide details of such programme and the beneficiaries.

Yes, TKRCET offers additional skill enrichment programmes to meet the needs of the industry. The college has initiated Campus Recruitment Training (CRT) along with the regular class work to improve soft skills, communication and analytical skill of the students to attend interviews.

The following skill oriented programmes are conducted on regular basis:

Name of the program	Department	In association with
ASSESMENT TEST	MECH	METTL
ASSESMENT TEST	MECH	FRESHERS WORLD
CRT	MECH	AMCAT
ARICENT EMPLOYABILITY	IT	MINDMAP CONSULTING (2016)
ARICENT EMPLOYABILITY	IT	MINDMAP CONSULTING (2017)
PROGRAMMING	IT	CODETANTRA (2017)
PCB-WORKSHOP	EEE	AMBEST TECHNOLOGY
E-CAD	EEE	CENTER CADD
MAT LAB TRAINING	EEE	WINEYARD TECHNOLOGY

DESIGN OF BATTERIES FOR E-BIKES	EEE	BATTERY DRIVES
CRT (ARICENT EMPLOYABILITY ENHANCEMENT PROGRAMMEARISE 2017	ECE	NASSCOM FOUNDATION & MIND MAP CONSULTINH
ARICENT EMPLOYABILITY ENHANCEMENT	CSE	MIND MAP CONSULTING

1.2.5 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice" If 'yes', how does the institution take advantage of such provision for the benefit of students?

No, the university does not allow the flexibility of combining conventional face to face and distance mode of education.

1.3   Curriculum Enrichment

1.3.1   Describe the efforts made by the institution to supplement the University's Curriculum to ensure that the academic programmes and Institution's goals and objectives are integrated?

The college takes every measure to implement the curriculum of the University to ensure that the goals and objectives of TKRCET are met. To face the current trends in competitive areas the institute has evolved additional inputs in the syllabus, through laboratory practices. To enrich the knowledge and make aware of Industrial requirements. The efforts of staff at TKRCET helps to supplement the university curriculum by imparting special courses like, Core Technological hands on experience, Personality Development, Campus Recruitment Training, Soft and Communication Skills training to succeed in campus interviews conducted by various companies.

1.3.2   What are the efforts made by the institution to modify, enrich and update the curriculum to explicitly reflect the experiences of the students and cater to needs of the dynamic employment market?

The institution has taken measures to cater to the global market needs based on the true assessment of strengths and services offered on the

campus. The institution is completely computerized at the administration and academic levels. Computer labs are well equipped with latest computers. Internet facility is made available at the library and the entire campus is connected to internet via Wi-Fi. OHP, Computers, LCD Projectors are being used for effective communication and teaching. All graduation courses involve one compulsory paper on fundamentals of Computers. The study of this enables all graduates to be familiar with computer fundamentals which enhance employability. Supplementary courses apart from curriculum are introduced to meet the needs of dynamic employment market. The Institute encourages the faculty and students to use online resources like *IEEEXplore, ASME Digital Library, Springer Link, DELNET, NPTEL lectures, MIT courseware,* and simulation software to improve their learning and research skills.

Hence, the efforts made by Institution help our students to compete in the global human resource market by undergoing the above supplementary value added courses, industry oriented Mini and Major projects and Workshops.

1.3.3   Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?

At TKRCET, the cross cutting issues like Gender, Climate Change, Environment Education, Human Rights, ICT etc., is given an ample scope and implied in the curriculum positively. Efforts are made to accommodate cross cutting issues into curriculum through Guest lecturers from eminent personalities from industry, organizing competitions, workshops and expert lectures beyond the curriculum in relevant areas. The college environment has no gender bias and respects people of all walks of life. However the said cross cutting issues are imparted in the form of elective subjects as a part of curriculum by the affiliating university.

1.3.4   What are the various value-added courses/enrichment programmes offered to ensure Holistic development of students?

To ensure holistic development of students measures have been taken in deploying a few value added courses into the curriculum by the affiliating university JNTUH.

➤ **Moral and ethical values**

In order to ensure holistic development of the students, JNTUH has incorporated "**Professional Ethics and Morals"** into the curriculum. The institute itself has conducted many programmes in association with other organizations to make our students better citizens.

➤ **Employable and life skills**

To enhance the employability and life skills of the student's community, various departments are working through various activities in the institute.

➤ **Better career options**

The college concerns the dire need of good communication skills which plays a vital role for better career options and makes enough efforts to train functional English. Therefore, the institution has incorporated Soft & Communication Skills and Analytical Skills into the curriculum at 2nd and 3rd year level of UG programmes. The institution has recruited expert trainers in the above areas to develop communication competence among the students. Students are also allotted the different responsibilities in organizing various events and activities such as cultural programmes, competitions, seminars, workshops etc. In this way they improve their team building and organizational skills.

➤ **Community orientation**

The college has an NSS team which regularly visits surrounding areas and villages where people are provided awareness on various social, moral, ethical principles and ways of life. NSS team of the college participates in community services/development activities like organizing blood donation camps periodically. Also, across the curriculum of JNTUH in recent has made amendments accordingly to incorporate the concepts of Gender Sensitization as a qualitative case study.

1.3.5 **Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?**

The institution has various channels to collect and document responses on curriculum from the stakeholders. Students express their opinion on curriculum through response sheets. Oral responses are also considered. Special formats are framed in line to attain the objectives of Institute used for alumni and parents to register their views during interface meetings. Subsequently Advisory committee analyses feedback and prepares response chart for future use. The Principal reviews the analysis reports and initiates interventions. The teachers collect the exit level feedback from the students regarding learning processes after the end of each semester. The inputs are obtained from the stake holders regularly and further used to improvise the overall competency of the students for employability.

1.3.6. **How does the institution monitor and evaluate the quality of its enrichment programmes?**

The Institution makes sure that the programmes offered in the curriculum   include contribution to national development, fostering global competencies among students, inculcating a value system among students, promoting the use of technology and quest for excellence.

The Institution also makes sure that all the value added programmes should contribute to the overall development of students in terms of skill, knowledge and different types of maturities like mental maturity, intellectual maturity, philosophical maturity etc.

The Institution conducts various enrichment programmes. These are constantly reviewed and monitored through the feedback system. The feedback forms of such are designed by the committee or departments who organize such programmes. The feedback for such programmes are taken on the syllabus, resource persons and the method of programme delivery. This mainly looks for whether stated objectives of the programme are achieved or not.

Students have to fill the feedback forms after the sessions of the programmes. Once the feedback forms are collected, they are further

evaluated to find out the shortcomings of the programme, success of the programme, its quality etc. The feedback is taken into account by the responsible committee, who has organized such programmes for future enhancement and corrections.

1.4 Feedback System

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

TKRCET conducts frequent meetings with industry experts, alumni, academic peers along with stakeholders and records their feedback on curriculum. The records are then communicated to the respective Boards of Studies, JNTU-H. The curriculum, are developed and reviewed by respective Boards of Studies under the direction of the Academic Council of JNTU-H. Then the Boards concerned forward their recommendations to the Academic Council the introduction of new Academic programs; prepare detailed curriculum, syllabus, scheme of examination and evaluation for the courses; and review the syllabus from time to time and suggest modifications/ up-gradation.

The new programs/curriculum are formally approved by the Academic Council at JNTU-H after detailed deliberations and the minutes of the meetings are duly recorded.

1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

Yes, the feedback on syllabus and other aspects is obtained from the students, alumni, the stake holders, employers/industries, academic peers and by other sources is thoroughly examined by the college committee. The outcome/ suggestions for improvements of syllabus are then communicated to the respective Boards of Studies at JNTU-H for suitable action.

1.4.3 How many new programmes/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?

TKRCET in the recent past has introduced 8 PG courses, 6 UG courses, 6 diploma courses to cater the needs of Industrial requirements. However, a few PG courses were closed with respect to poor admission status. A dire need of introducing postgraduate disciplines of below mentioned subjects was felt based on demand and industry relevance.

Level	Course Name	Year Started
PG	M.Tech in Computer Science &Engineering	2008-09
	M.Tech in Power Electronics	2010-11
	M.Tech in Software Engineering	2011-12

CRITERIA II

TEACHING LEARNING EVALUATION

2.1   Student Enrolment and Profile

2.1.1   How does the college ensure publicity and transparency in the admission process?

TKRCET ensures publicity and transparency in the admission process through:

a. Prospectus

b. Institutional Website

c. Advertisement in Regional/ National Newspapers

Prospectus:

An admission brochure is published every year before the admission process. The prospectus provides extensive information regarding the Criteria for admission, Courses offered, Structure of Fees, Facilities, Placement, Faculty Profile, Scholarships and financial support to the economically weak students, Hostel and other facilities, rules and regulations of the College and the affiliating University, etc. The prospectus is updated every year to provide latest information to the students seeking admission in the College.

Institutional Website:

Detailed information, relevant circulars and notifications regarding admission are also communicated through the college website (www.tkrcet.ac.in). Student/Parent/Staff portal with unique ID are provided for easy cross check of Attendance, Mid Marks and Results.

Advertisement in Regional/ National Newspapers/Hoardings:

TKRCET provides information and announcements about important events i.e., Technical Festival (PRATIBHA), Departmental fests like AVISHKAR(EEE), MECHATHLON(ME) SKYKHAR(CSE) etc., Conferences, Workshops, Symposia, dates of commencement of class work etc., in Regional / National Newspapers and Institutional Website regularly. Advertisement through hoardings/flexes, is another process to disseminate information.

Transparency:

TKRCET has brand reputation for its transparency following the rules and regulations of JNTUH by which the institute maintains high social status and work environment by providing all facilities for students of all walks of life.

2.1.2 **Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.**

TKRCET offers various professional courses at UG (B.Tech), PG (M.Tech, MBA) and Diploma (2nd shift Polytechnic) levels. Admissions for B.Tech courses are done through EAMCET (Engineering, Agricultural and Medical Common Entrance Test) for MBA through ICET (Integrated Common Entrance Test), and for M.Tech through GATE conducted by IIT system on behalf of MHRD/ PGECET (Post-Graduate Engineering Common Entrance Test) conducted by TPSCHE while admissions into Diploma courses are through POLYCET (Polytechnic Common Entrance Test) conducted by State Board of Technical Education and Training (SBTET), Govt. of Telengana.

Out of total intake of students, 70% of the seats are filled by Convener and 30% of the seats are admitted through Management Quota as per regulations, and all seats in the diploma courses are filled through online counseling by SBTET. The College is periodically participating in educational fair to give learning opportunity for the students of other States also as well.

The candidates who possess Diploma in Engineering/Technology awarded by the State Board of Technical Education & Training or its equivalent are eligible to apply for admission into the Second year of B.Tech according to guidelines by TPSCHE through Engineering Common Entrance Test (ECET).

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.

SI. No	UG/PG	Min marks for admission into Convener seats	Min marks for admission into B-category seats	Minimum Qualifications
1	UG (B.Tech)	45%	50%	Passed or appeared 10+2 examination
3	PG (M.Tech)	50% marks in group subjects	50%	Passed or appeared for the final year of B.E./ B.Tech./ AMIE
3	PG (MBA)	50%	50%	Passed recognized Bachelor's Degree Examination of

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If 'yes' what is the outcome of such an effort and how has it contributed to the improvement of the process?

Institution has a well-defined and well-designed mechanism to review the annual profiles of the students. Theoretically proven techniques are also being implied to evolve patterns for performance. The profile of the ranks over the years is continuously monitored to attract better ranks to join the institute. TKRCET tries to motivate the students by providing them the requisite facilities. The activities of students are closely monitored. A record of their performance in all the fields, academic as well as extra-curricular is maintained in the office. The students, who bring laurels to the institution, like in the academics, sports, extra-curricular, or other similar areas, are duly rewarded. The student with a pinch of negative or disturbed attitude are motivated with counseling so that a positive frame of mind can be developed which would fetch the student to improve his credentials and be an a asset for the institution. This effort is applauded by the prospective students and parents, which increases the chances of TKRCET being a preferred Institute.

Outcome

As a result of this process, in the last five years, the institute has observed a sharp rise in the students maintaining discipline, and learnt to channelize their energy and potential into more constructive activities.

2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion

- ➢ SC/ST
- ➢ OBC
- ➢ Women
- ➢ Differently abled
- ➢ Economically weaker sections
- ➢ Minority community
- ➢ Any other

Through the reservation policy of the Government, 14% of the seats are reserved for Scheduled Castes, 7% for Scheduled Tribes, and 25% for Backward Class, 4% for Muslim minorities, 1% for Disabled, 1% for NCC, and 1% for CAP. There is also some relaxation in the cut-off marks for admission. After admission scholarships and Fee reimbursement to the eligibility extent are provided to SC, ST & OBC students by the state government. For women there is 33% reservation of seats for girl students. The College Authority takes every step to make a healthy and congenial atmosphere on the campus which is encouraging for the girl students by providing waiting halls, recreation rooms, sports facilities etc., A Women's Grievance Cell is specially incorporated to take care of them. Government's policy of reimbursement of the tuition fee for these candidates whose parental income is below Rs.1, 00, 000 is to be considered. The norm of the state government varies from time to time.

2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e, reasons for increase / decrease and actions initiated for improvement.

Programme	Course	2013-14			2014-15			2015-16			2016-17		
		Number of Applications	Number of students Admitted	Demand Ratio in %	Number of Applications	Number of students Admitted	Demand Ratio in %	Number of Applications	Number of students Admitted	Demand Ratio in %	Number of Applications	Number of students Admitted	Demand Ratio in %
UG (B.Tech)	Civil	66	66	100	122	122	100	119	119	100	-	-	-
	CSE	240	212	88	240	232	97	240	236	98	240	232	97
	ECE	240	201	84	240	229	95	240	232	97	240	214	90
	EEE	95	89	93	103	94	91	94	94	100	98	90	91
	IT	60	51	85	60	57	95	60	57	95	60	53	88
	ME	120	109	90	180	162	90	180	152	84	180	72	40
PG (M.Tech)	VLSID	24	23	96	24	22	92	24	12	50	--	--	--
	EPS	-	-	-	24	21	87.5	24	8	33.3	-	-	-
	CSE	24	23	99	24	21	97	18	11	61			
	Software Engg.	18	15	70	18	15	70	-	-	-	18	06	33
	Structural Engg.	18	18	100	18	18	100	-	-	-	-	-	-
	PE	24	18	75	24	22	95	24	18	75	24	23	97
	High Way Engg.	-	-	-	24	24	100	-	-	-	-	-	-

2.2 Catering to Student Diversity

2.2.1 How does the institution cater to the needs of differently- abled students and ensure adherence to government policies in this regard?

The institution fully abides the government policies, rules and regulations to cater to the needs of the differently-abled students. These seats are reserved and offered according to the government policies at the time of admission in various programmes. The institution ensures that the classes to these students shall be held in the ground floor for the easy accessibility of class rooms and other facilities to them. During the time of examination, the institution provides some writers for the students having vision and functional disability. Special classes, counseling sessions are arranged to these students as a part of academic support. These students are also provided with extra time at the time of end examinations..

2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

Yes, the institution takes care of every aspect and needs of the students. The institution acts as a ladder to climb up their world of aspirations and ambitions which enable them to reach their goals and succeed. Immediately after the commencement of every course, basic knowledge and shortcomings of students are judged by the teachers through one to one interaction. Each class has a Class in-charge and each class is divided into groups of 20-25 students with an COUNSELLOR for each group of every class in each department concerned, will be taking care of the students in terms of motivation with respect to their education, health, skills development, and personal factors (in some cases exceptionally). Before commencement of the session, admitted students are given special orientation about Engineering Course, Course Method/Mid Exams and overall view of course is introduced which enables them to cope up with the syllabus of the course.

2.2.3 What are the strategies drawn and deployed by the institution to bridge the knowledge gap of the enrolled students to enable them to cope with the programme of their choice? (Bridge/Remedial/Add-on/Enrichment Courses, etc.

TKRCET takes pride to monitor the academics in different modes of Teaching-Learning. Well qualified and dedicated faculty refreshes day-to-day class work by applying continuous and innovative ways of Teaching. Well equipped with teaching aids and digital classroom brings new perspectives in congenial way. Students/faculty interaction with subject discussion is always welcomed and duly encouraged. The faculty and student community Teach/Learn by English Medium but exceptionally explanation in local language is accepted for better understanding.

The students are given an opportunity to show cast their talent in various activities in laboratories where the real time working is experienced. The creativity, self confidence level, and Soft skill training makes the student community to face the industry needs through special training at CRT by TPO cell. Special emphasis is laid on underscores by continuous assessments and Remedial classes are included in the timetable as extra classes beyond the regular time table. Class mentor monitors the schedule of functioning academic lectures, student attendance and etiquette and their purpose and interaction with parents is a part of his/her duty.

2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?

The specific Criteria of Gender absolutely has no bias at TKRCET. The Institution respects both genders to its utmost and sensitizes its importance. The students and staff participate in different social causes like Nirbhaya, Swacch Bharath and many other awareness programmes like NSS, Blood donation, flood relief fund, poor/orphan donation etc., to realize their responsibility in the society as a law abiding citizen of India. JNTUH has the privilege to introduce as credit based course is praise worthy at this aspect.

2.2.5 How does the institution identify and respond to special educational/ learning needs of advanced learners?

Strategies adopted to facilitate advanced learners:

1. Advanced Learners are given tasks that involve more abstract materials, representations, ideas and applications.
2. Advanced Learners are assigned tasks that are more complex in resources, research issues and skills or goals.
3. Advanced Learners are given tasks that require greater inquisitiveness or manipulation of information, ideas of applying subject matter.
4. Arranging guidance classes for competitive examinations like GATE, GRE.
5. Learners are given an opportunity to teach the peers. Group/Team Work is encouraged by assigning project work which enables them in co-operative learning.

2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc.)

The institution collects and analyses data and information on the academic performance from:

➢ scholarly record/ Parent feedback

➢ Attendance records

➢ Academic Counselling report

➢ Faculty feedback of the student

➢ Student behavior and attitude

➢ Subject/Classroom/Lab involvement

➢ Performance in class test, assignments etc.

Remedial Measures for disadvantaged Sections/ Slow Learners:

➢ Special Coaching with empathy.

➢ Remedial Classes for doubt clarification.

➢ Scholarships.

➢ Financial aid.

➢ Simplified learning material by providing learning material &handouts.

2.3 Teaching-Learning Process

2.3.1 How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)

The academic actions of the institution are based on the academic calendar of the affiliated university JNTUH. In the beginning of the academic year/semester, college prepares its own academic plan, proposing the activities and the probable dates of various activities on par with the university academic plan. It provides plan for the academic year to students, teachers and parents. Within the framework, the institute has to provide the exposure to the subjects as given by the syllabus prepared by the affiliated university. Each department functions according to the teaching plan prepared at the department level. The faculty follows a Course plan, which contains the details regarding institutional objectives to be achieved, Course Objectives, details of contents to be covered, previous question papers (Internals & Externals) are referred for better classroom teaching.

The teaching plan is prepared by the faculty of the concerned subject and the same is submitted to the HOD and the Principal. Theory and practical examination patterns and scheme of evaluation are explained to the students in the beginning of the academic year (semester wise) likewise given in academic regulations of JNTUH.

Students are also evaluated through tests, tutorials and discussions in class room as well as in laboratories during practical hours, seminars and group discussions. The evaluation of the tests, tutorials and home

assignment form the basis of judging the performance of the students throughout the year. The final evaluation of the student is done according to the JNTUH regulations. Towards the end of each session/semester, theory and practical examinations are conducted by the university and evaluation is carried out.

2.3.2   **How does IQAC contribute to improve the teaching -learning process?**

Internal Quality Assessment Cell (IQAC) works as a great guideline agency in TKRCET the main objective of the IQAC cell is to provide the benchmarks/parameters for development of various academic and administrative activities of the institution. It also imparts knowledge through team work and persistent efforts. Receiving and giving timely feedback keeping in view the vision and Mission and participative philosophy, enables knowledge disbursal through team work and relentless efforts. This helps to promote the research and consultancy, develops state-of-art infrastructure, and ensure timely, efficient and progressive performance of academic, administrative and financial tasks. It continuously monitors promotion, implementation and continuous improvement of innovations in Curriculum, Co-curricular and Extra-curricular activities of the institution. Through its mechanism of data-information collection and analysis, it suggests required changes in teaching and learning methods. The following improvements have been brought as per their guidelines.

- Use of Audio- Visual aids
- Project based learning (real-time)
- Computer assisted learning for students & staff (DIGI Class)
- Experimental learning (practical & application based)
- Training programs through Seminars and one-to-one interaction sessions
- Use of teaching Models and Charts (Demonstrative Teaching)
- Group discussion
- Guest lectures by industrial professionals.

2.3.3 How learning is made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?

TKRCET always supports teachers to develop skills like interactive learning, collaborative learning and independent learning among the students. The institute provides a well-equipped library with huge number of volumes in its stocks, a digital library where students can access standard journals, NPTEL, MIT video lectures and teachers also can access the resources through Wi-Fi network. Teachers and students are also encouraged to use internet & computer facilities to keep themselves abreast of the latest developments.

Apart from these, various departments conduct a number of activities like seminars, debates and elocution on current issues, group discussions, and quizzes. Such activities develop stage courage, skills of expression, thinking power among the students. Student's enthusiasm, involvement and willingness to participate make learning mode more student-centric. Several student-centric participatory learning methods are practiced by the Institution. The institution also conducts a Tech-Fest PRATIBHA to facilitate & encourage students to participate in various academic and curricular activities.

2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

The institution envisages the all-round development of every student by inculcating critical thinking, creativity and scientific approach to transform them into life-long learners and innovators. This is done by conducting various activities like group discussions, quizzes, case studies, paper, poster presentations and seminars by which students could work on their abilities to their best. To enrich their critical thinking, we make them to participate in GDs, debates, seminars and JAM which will help them to think and explore new ideas and get the feedback from the

experts and eminent professionals in their area of study. A culture is imbibed among the students that the acquisition of knowledge and skills not only helps them during their affiliation with the college but also helps them throughout their life.

2.3.5 **What are the technologies and facilities available and used by the faculty for effective teaching? Eg. Virtual laboratories, e-learning - resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.**

TKRCET takes all efforts to impart technologies and facilities available to the faculty for effective teaching. The institute uses modern multimedia teaching aids like multimedia projectors, internet enabled computers, white-boards in classrooms for effective presentation of the subject. Resources from NPTEL, *NMEICT* and other resources are made available to the students and staff. The institute has been provided 60 units with 20 mbps of internet bandwidth. The college is also equipped with latest digital classroom facility like DIGIPro. The students are also encouraged to use computer software packages for meaningful analyses of the experimental data collected/acquired by them.

2.3.6 **How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?**

TKRCET organizes various seminars, expert lectures, conferences and workshops for students and faculty to advance in the level of knowledge and skills. It also encourages them to keep pace with recent developments in their disciplines by pursuing research journals, latest reference books, participating in national seminars / workshops / symposium / summer schools / Industrial visit / refresher courses / internet browsing and interactions with experts. The students are encouraged to read the magazines, journals, CD-ROM data bases and latest information available on the internet & in the library. Faculty members and students are encouraged to take membership of professional and academic bodies. Also, the courses, contents, texts and reference books are periodically

updated to keep pace with the rapid changes. Faculty members and students use these resources to keep themselves in touch with the modern development in various subjects.

2.3.7 **Detail (process and the number of students benefitted) on the academic, personal and psycho-social support and guidance services (professional counseling / mentoring/ academic advise) provided to students?**

At TKRCET there is a provision of Academic Counseling. Each class is divided into a group of 20-25 students and an Academic Counselor of the department concerned will look after the student's academic, personal, and psycho-social support and guidance on professional counseling, mentoring, motivation, and skills development.

2.3.8 **Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faulty to adopt new and innovative approaches and the the impact of such innovative practices on student learning?**

TKRCET encourages the faculty to adopt new and innovative approaches for the betterment of teaching-learning process. They encourage use of latest developments in teaching methodologies. The institution also provides modern teaching- learning aids like LCD, Computers with internet facility in the classrooms, white-boards, DIGIPRO interactive classrooms. The faculty members are encouraged to participate in workshops on teaching methodologies conducted by the affiliating university, like ICT, Mission lOx to improve teaching-learning process. Also, the Institute provides financial assistance to attend workshops, conferences both at national/ international level. The faculty members who attend such seminars/ conferences share their experiences with students and faculty with latest information and talent developments.

As an outcome of these innovative techniques the students are equipped with the latest technologies, their trends and impact of their usage in the society. Confidence levels of students are enhanced enabling them to participate actively in all competitions.

Methodology of Teaching Learning Process to attain Academic Excellence, is as follows.

➢ Check list of Teaching Learning Process is followed by each faculty member to meet outcome based procedures.

➢ The continuous monitoring is done for Course material by using Pre & Post Academic review session.

➢ After completion of every academic session Average Performance Index of each Dept. is evaluated.

➢ Subsequently, targets are set for the up-coming semester in Academic committee of the Institution (**ANNEXURE VI**).

2.3.9   How are library resources used to augment the teaching-learning process?

The institution has centralized library which is a treasure house for education and research. The Library is well equipped with books, journals, magazines, back volumes, CD, encyclopedia and thesis including e-books and e-journals. The Library has a vast collection of 81,635   Volumes and 7,507 titles, in addition 152 National Journals, 219 full text IEEE-online Journals, J-Gate Management Science online Journals, 120 Bentham online Journals and 40 General Technical Magazines and 11 Newspapers are available. Library owns DELNET, IEEE, and SPRINGER Memberships. Hundreds of INFOTRAC Engineering collections are available through INDEST-AICTE Consortium. Besides this, the Central Library is kept open from 9.30 a.m. to 6.30 p.m. for Staff and students.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If 'yes', elaborate on the challenges encountered and the institutional approaches to overcome these.

The Scenario of not completing the curriculum is unseen as per the almanac, as a bounded responsibility all measures are taken by the Departmental Academic committee in completing the curriculum within the stipulated timeframe.   Also, the teachers manage to successfully shoulder their responsibilities. Sometimes because of natural calamities and local Holidays, institution faces challenges in completing the curriculum but the college tries to overcome these challenges through

extra classes. The HOD keeps a check on the syllabus covered. The details checklist of pre and post evaluation are enclosed in **ANNEXURE VI**

2.3.11 How does the institute monitor and evaluate the quality of teaching-learning?

IQAC through interaction with teachers and students submit reports of the feedback to the Principal. The institution follows the continuous evaluation for good quality of teaching learning through, feedback from students and teachers. Class work is reviewed periodically monitors with course completion forms.

2.4 Teacher Quality

2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
Ph.D.	13	2	-	-	-	-	15
PG	01	1	20	14	123	118	278

Faculty is recruited based on the qualifications prescribed by the affiliating university JNTUH norms, sustaining Government Order GO-MS No 14, AICTE from time to time. The college advertises in the local newspapers and even in national papers in order to reach the best faculty across the country. The interviews are conducted by the panel of experts. The recruitments process includes written test followed by the personal interview by the expert committee recruits the faculty.

2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programs/ modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

No scarcity exists, the Institute being, centrally located in the Hyderabad city is added advantage to meet the demand/scarcity of IT Industry. Specifically by enhancing the skills of Computer Science & Engineering, Information Technology students.

2.4.3 a) Providing details on staff development programs during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

Academic Staff Development Programmes	Number of faculty nominated
Refresher courses	50
HRD programmes	48
Orientation programmes	60
Staff training conducted by the university	34
Staff training conducted by other institutions	24
Summer / winter schools, workshops, etc.	20

b) Faculty Training programmes organized by the institution to empower and enable the use of various tools and technology for improved teaching-learning

Teaching learning methods/approaches

➢ A training programme was conducted to familiarize the teachers to use the

➢ interactive boards.(DIGI class)

➢ A training programme was organized for staff and students to familiarize them on DELNET.

➢ A training programme was conducted on ICT awareness in association with ICT Academy.

Handling new curriculum

➢ A workshop was conducted by JNTUH on effective implementation of curriculum of new regulation.

Content/knowledge management

➢ All the departments organize seminars at National and Regional levels & invite Experts from various fields to enrich the knowledge by arranging Guest Lectures.

Selection, development and use of enrichment materials

➢ The college subscribes to a number of journals related to different disciplines, specifically focusing on thrust areas of engineering and Management Courses.

➢ We have access to DELNET and it helps us to gather information as required.

➢ The department faculty encourages their respective students to publish a monthly magazine which enriches the literary skills of students.

➢ Manuscript magazines are published by all the departments every year.

➢ Individual Department Library is brought into existence for enrichment and enhancement of knowledge among students and staff.

Assessment

➢ The institute deputes faculty members to attend the training programmes conducted by the university on Evaluation and Assessment

Audio Visual Aids/multimedia

➢ All faculty members receive training in handling interactive smart boards and related accessories to enhance teaching strategies.

Teaching learning material development, selection and use

➢ Teachers are trained to explore the internet to create PPT presentations.

➢ Teachers and students are encouraged to access information from DELNET and NPTEL and other web resources.

1	Invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies	05%
2	participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies	44%
3	presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies	47%

2.4.4 **What policies/systems are in place to recharge teachers? (eg: providing Research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)**

The institution extends full support for the professional development of the faculty. The faculties are encouraged to pursue their M. Tech. and Ph.D. The institution deputes its teachers to attend refresher and orientation programs, conferences, seminars and training programs organized by in/other institutes, universities and research organizations. The Institute grants on duty leaves according to the nature of work. Also, the weightage of annual Increments involves active participation in academic growth of every individual faculty.

2.4.5 **Give the number of faculty who received awards / recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.**

The institute provides excellent teaching-learning facilities like good infrastructure with all amineties, expert senior faculty members who always encourage their peers to excel in their teaching-learning core with valuable guidance. The study centric environment and conducive atmosphere of the institute encourages teachers to prove their caliber and promotes self-confidence by which the following teachers have been rewarded by various institution and state level bodies.

S.No	Name of the Faculty	Award
1	Dr. S Rajesham	Best Paper IIM Award coimbatore
2	Dr. K.M.V Madan Kumar	Best Instution In Placements

Best Paper IIM Awards-Coimbatore

Best Institution in Placements

2.4.6 **Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?**

Yes, the institution takes feedback from student regarding the individual teacher by questionnaire. On the basis of this Principal gives detailed report to the concerned teacher. Such evaluation helps the individual teacher by really improving the quality of teaching learning process. Thus a teacher will be able to understand his /her strength and weakness in his methodology.

2.5 **Evaluation Process and Reforms**

2.5.1 **How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?**

The stakeholders of the institute i.e. students, parents, teachers,

industry, regulating bodies are made aware of the evaluation process as it is a part of the prospectus which is given at the time of admission or through pamphlets, website of the institution. First year students are informed about the process of evaluation of the institute by the Principal during the orientation/ welcome programmes. Individual subject teacher informs the students about criteria & method of internal evaluation in respective theory & practical subjects.

2.5.2 What are the major evaluation reforms of the university the institution has adopted and what are the reforms initiated by the institution on its own?

The institute is affiliated to JNTUH. The university has initiated various evaluation reforms viz.

- ➢ Introduction of four sets of question papers with different questions to the same subject.
- ➢ Mid Exams are conducted to evaluate the performance of students, which has both objective and subjective questions.
- ➢ The university introduced bar code to main examination booklets to maintain confidentiality.

The university has introduced 75:25 pattern of examination for B.Tech, 75:25 for M.Tech. Sticking to the university guidelines 25% of the evaluation is done internally and 75 % by the university through end exams. The student obtains 25% marks through the mid exams conducted by university for 20 marks each, and 5 marks for assignment, submitted in due course of time. The average of these mid exams is considered for evaluation of 25 marks. The college has implemented these reforms successfully as per norms set by the university. At the Institute level focus on minor exam assessment is made to thoroughly understand and analyze the capability of grasping the class lecture delivered. In addition to this, individual departments and teachers maintain their own question bank for each unit and regular unit wise class tests.

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?

The evaluation system of the affiliated university is followed in true spirit. To ensure effective implementation of the evaluation reform of the University, following steps are taken by the institute:

➢ The students are intimated about the implementation of reforms made by university through notice board, and website from time to time.

➢ A model/pattern examination will be conducted for the students such that they are well trained to acquaint with the new paper pattern, evaluation scheme and the period of examination.

➢ Internal marks are displayed on the college notice board.

➢ A letter/SMS is sent and parents of the students who remain absent in theory and practical classes for long duration are called and extra efforts are made to ensure that his/her internal evaluation is not affected.

2.5.4 Provide details on the formative and summative evaluation approaches adapted to measure student achievement. Cite a few examples which have positively impacted the system.

University is the sole authority for implementation of reforms in examination and evaluation but faculty members who are a part of academic bodies of the university actively propose for reforms. All faculty members follow formative approach.

Formative Assessment:

The goal of formative assessment is to monitor student learning, to provide on-going feedback that can be used by teachers to improve their teaching and by students to improve their learning. Formative Assessment of the students is done on the following parameters:

➢ Assignments
➢ Internal examinations
➢ Presentations
➢ Industrial visits

- ➢ Class interactions, Group discussions/ Viva-voce
- ➢ Workshops/Seminars
- ➢ Projects & Research activities
- ➢ Curriculum based training
- ➢ Social activities
- ➢ Inter college competitions
- ➢ Overall attendance and conduct during the session.

Summative Assessment:

The goal of summative assessment is to evaluate student learning at the end of an instructional unit by comparing it against some standard or benchmark. Summative assessments are often high stakes, which means that they have a high point value. Summative Assessment takes place at the end of the academic session which is conducted by the college during the Model Test at the end of the semester. This process helps the students to gain confidence and to achieve good results. This is how the institution uses the formative and summative evaluation approach to measure the students' performance. The university conducts a summative evaluation at the end of each semester through the following.

- ➢ Written Exams
- ➢ Practical Exams
- ➢ Viva voce
- ➢ Project work

2.5.5. Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the student's results/achievements (Program/course wise for last four years) and explain the differences if any and patterns of achievement across and programmes/courses offered.

Academic performance, regularity, participation in co-cirrular and extra-curricular activities; physical and mental well-being – all these factors plays a vital role in the progress of the students.

Academic monitoring:

The academic performance is monitored by observing the student

performance in the classrooms through discussions, interactions, presentations, seminars, and assignments. Monitoring is also done by observing their performance in the internal examinations, and final semester examinations taking both theoretical and practical aspects into consideration.

Analysis of students results for last 4 years:									
YEAR	BRANCH	SEM-1				SEM-II			
		I	II	III	IV	I	II	III	IV
2015-16	CIVIL		88.6	89.9	85.5	74.1	77.1	88.4	91.3
	EEE		35.36	60.42	73.68	52.8	53.75	65.89	62
	ME	--	57.14	82.81	70	48.12	51.42	83.5	76
	ECE		59.33	75.22	91.82	47.22	63.9	75.22	91.34
	CSE		40.74	56.4	51.7	37.9	50.9	43.3	68.6
	IT		69	82	93.75	35	69	71	87.5
2014-15	CIVIL		71.4	79.4	83.6	84.5	73.9	80.9	88.1
	EEE		50.02	50.76	73.23	45.5	65.86	67.18	81.10
	ME	--	87.5	68	75	56.11	84.37	61	86
	ECE		81.85	93.75	45.83	63.77	86.28	93.26	76.4
	CSE		34.3	32.7	46.9	32.4	43.5	50	67.8
	IT		74	92	75	69	76	89.79	92
2013-14	CIVIL		87.1	91.3	92.6	72.8	84.1	89.9	92.5
	EEE		53.65	75.65	91.23	56.92	54.45	75.89	75.85
	ME		76	82	91	83.65	59	79	95
	ECE		91.34	62.5	74.47	79.03	94.23	66.9	74.5
	CSE		47.5	71.5	68.8	31.7	43.4	36.8	89.3
	IT		84.9	92	78	70.8	81.13	78	96.5
2012-13	CIVIL		76.3	96.6	96.5	81.1	93.2	93.2	100
	EEE		62.53	60.05	88.9	45.87	79.56	70.18	72.31
	ME		76	91	93	53	78	91	94
	ECE		53.8	65.03	81.45	98.8	69.23	58.87	92
	CSE		50.2	65.5	69.2	51.7	72.8	69.6	97.8
	IT		82.75	81.66	96	80	81.03	84.74	98

Regularity:

The regularity of the students is monitored by filing his/her, presence / absence in every class and the status is forwarded to parents. If the student is regularly absent then his /her parents are asked to visit the department for knowing their child status.

Co-curricular and Extra-curricular activity monitoring:

➢ After identifying their areas of interest in co-curricular and extra-curricular, the student participation/non participation is recorded.

➢ The institution communicates the progress and performance of the students through the following way.

➢ Announcement in classroom & Display on the notice board

➢ In felicitation function.

➢ Best out-going student Award.

2.5.6. Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioral aspects, independent learning, communication skills etc)

There is complete transparency in the internal assessment. The criteria adopted is directed by the university. All the students are familiar about the transparency in internal assessment. The internal marks (25 marks) for the student is awarded by taking sum of Mid Exams. In spite of all the above aspects of the students, their behavioral aspects, independent learning and communication skills etc., are also taken into consideration during the assessment of a student during the lab marks evaluation.

2.5.7. Does the institution and individual teachers use assessment/evaluation as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples.

Yes, the institution and individual teachers use assessment and evaluation as a major parameter and indicator for evaluating student performance. The teachers assess and identify the areas where the students are found weak, and the Bridge Courses for the students are planned. Also the teaching methodology is adopted with more attention. The assessment and evaluation enables the teachers to assist the students to elect their optional and special subjects so that they can plan their careers of choice.

2.5.8 What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?

The grievances of the students with reference to evaluation process are made clear by showing his/her performance in the answer sheet. The student is made clear about every grievance he/she has in his/her mind at the college level for internal evaluation or at the University level for external evaluation.

College level:

In case the students are dissatisfied with their result in the Internal Test they are allowed for Rechecking the answer sheet. The answer sheet/s of such students are assessed by the faculty once again in the presence of the student.

University Level:

If a student is dissatisfied with his/her result in the University exam he/she can tender an application in the college in a prescribed format in the stipulated time (15 days). The college forwards the application to the University for the needful Action. Such answer sheets are re-evaluated by other examiners according to the rules of the University. The result is declared by the University when the procedure of Revaluation is completed.

2.6 Student performance and Learning Outcomes

2.6.1 Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?

Yes, TKRCET has clearly stated objectives which point out towards learning outcomes and has recognized that a full commitment to teaching and learning must include assessing and documenting learning. It also recognized that this information improves the method of imparting education. These objectives are stated in the prospectus. The vision, mission and goals of the college also indicate the learning outcomes. Each course also has objectives clearly stated which are discussed with the students. The results of Outcome Assessment are used to evaluate the effectiveness of academic programs and activities, and student services, and not the performance of individual faculty or staff. Faculty use the

information collected to develop and improve academic programs.

2.6.2 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

The Institute aims to help students to reach their potential through the provision of a supportive, vibrant and challenging learning environment. All the staff are involved in the construction of this learning environment. Learning outcomes are made aware for students by respective departments. As a part of domain knowledge outcome the course work for all the subjects are carried out by way of lesson plans, evaluation and end examination. Course assessments are done by getting feedback by respective subject teachers and learning gap is identified. Accordingly, guest lectures are planned.

As a part of employment outcome the students are trained for communication skills, soft skills, aptitude skills, analytical skills and personality development programs by using the in-house faculty and external experts. Team based projects and practice of ethics during the course of study develops a sense of social responsibility as a part of human relations. Various methods, like brainstorming and puzzles can be used in order to impart effective teaching and ensure active participation of learners in the classroom. Each method, in turn, has numerous techniques and variations which will enable learners achieve different knowledge levels of Blooms Taxonomy and Gardener's Multiple Intelligence. The TKRCET implies a course handout by involving the above said mechanisms, a copy of course handout is enclosed in **ANNEXURE V.**

2.6.3 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (quality Jobs, entrepreneurship, innovation and research aptitude) of the courses offered?

The initiatives taken up by the institution to enhance the social and economic relevance of the courses offered:

➢ Exposing the students to current market requirements by the interaction with HRs of reputed organizations.

- ➢ Organizing workshops and seminars to acquire the latest technologies
- ➢ Encouraging innovation in research aptitude in students to undertake, participate in research projects, national seminars & conferences.
- ➢ Organizing intensive training programs in association with various companies like Infosys Campus Connect, Microsoft etc.,

2.6.4 How does the institution collect and analyze data on student learning outcomes and use it for planning and overcoming barriers of learning?

Every semester feedback is received from the students, and also from the Heads of the departments and they are statistically analyzed and department wise planning is done to improve the quality of the education. Institution has formulated the following steps to overcome barriers in learning outcome.

- ➢ Providing question bank.
- ➢ Addressing the grievances.
- ➢ Providing valued answer booklets to the students after their internal theory & practical examinations.
- ➢ Encouraging students to write in the short and descriptive method.
- ➢ Emphasis on regularity of the students.
- ➢ Extra classes for slow learners and also counseling classes for weak students in the subjects to improve their performance.
- ➢ Periodic evaluation.

2.6.5 How does the institution monitor and ensure the achievement of learning outcomes?

To monitor the achievement of learning outcome the institution adopts the following:

- ➢ The marks are recorded, which act as a ready, reckoners for the academic progress of the students. The students' participation in the class and the marks scored in tutorials, assignments helps to judge the students by the staff members. Institute keeps a track record of students' performance and maintains their assessment record graph. Results of test, exams are recorded and evaluated every semester.

> ➢ The slow learners are taken care of by the mentors in counseling cell. Remedial programs are arranged for slow learners.

> ➢ Library register, attendance register are monitored to know about the student's interest in academic activities.

> ➢ The faculty members are encouraged to conduct surprise tests, quizzes to monitor the academic progress of each student.

> ➢ Department wise result analysis is done every semester when the results are published, and it is shared with the teacher and parents to improve the performance of the students.

2.6.6 What are the graduate attributes specified by the college/affiliating university? How does the college ensure the attainment of these by the students?

The Institute aspires to have a transformational impact on students through comprehensive education by inculcating qualities of competence, confidence and excellence. The institute has specified its graduate attributes in-line with outcome based education policy adhered by the statutory body like NBA. The following are the graduate attributes

1. Knowledge base for engineering
2. Problem analysis
3. Investigation
4. Design
5. Use of engineering tools
6. Individual and teamwork
7. Communication skills
8. Professionalism
9. Impacts of engineering on society and environment
10. Ethics and equity
11. Economics and project management
12. Life-long learning

- The institute aims to make its students employable.
- The institute endeavors that its students should become valuable global citizens.
- The institute makes the students academically sound enough, so that they are able to stare into the eyes of the competitive world.

The institute ensures that by the time the student finishes his/her education in the institute, he/she attains all these specified attributes. The faculty members of the institute work rigorously throughout the academic year to enable the students imbibe the valuable lessons by way of seminars, moral lectures, presentations and field work. The faculty sensitizes students towards inclusive social concerns, human rights, gender and environmental issues to make them sensitive, sensible, useful and conscientious global citizens.

CRITERIA III

RESEARCH CONSULTANCY AND EXTENSION

3.1   PROMOTION OF RESEARCH

3.1.1   Does the institution have recognized research center/s of the affiliating University or any other agency/organization?

Yes, the institution has established" Innovation Center for Composites" in collaboration with SVS Hydraulics Ltd. Also, an Innovation center for Mechanical Engineering Department is brought into functionality. The Institute motivates every department for Promoting research activity, in this line Computer Science & Engineering Department has made a MoU with Mavin value Creations Software Solutions.

INNOVATION CENTRE

The TKR College of Engineering & Technology is established in 2002, with 4 branches. Later the Department of Mechanical Engineering was established in 2005 with an intake of 60 and presently the department was running with 120 in-take. The Department was accredited in 2014 for about 3years, this accreditation is valid till 2018 June. The composite center for innovation was established in 2013 July with a vision of inculcating the research temperament in undergraduate students and faculty members in view of promoting the technology towards utilizing the advantages of advanced composites for the purpose of catering the needs of urban and rural population with an objective of replacing wood materials with composite materials to curb the indiscriminate cutting of trees, which may lead to the global warming. The center has already acquired support from the local fibre reinforced polymer industries such as SVS Hydraulics, which is manufacturing pultruding machines, SMC based products manufacturing such as doors and windows frames for low cost housing. There is lot of synergy between the industry and this institution by supporting each other by sharing knowledge through under graduate, post graduate and Ph.D. level research activities perused in this premises. This industry has sponsored a machine to conduct Bi-Axial tensile and compressive testing machine, which is supporting the research works of 3Ph.D scholars. The Bi-Axial tensile and compressive testing machine is

needed to thoroughly analyze the failure behaviour of various composite materials. Which is important to establish failure theories of laminated composite materials which may lead to design optimization of shell structures, columns and struts made by laminated composites. This research activity will definitely support the young entrepreneurs those who would   like to establish their enterprises in the area of composites which is an up-coming area, which is having a lot of scope for new markets which are probable to emerge in near future.

The innovation center has developed their own machinery to mechanize the manufacturing processes to improve the working environment of   FRP work shop's work force.

The list of machinery developed for the innovation center:

Sl.No.	Description of the equipment developed	Specifications	Remarks
1	Resin transfer moulding	Specimen size is 400mmx400mm	Specimens are prepared as per ASTM Standards.
2	Vaccum assisted resin transfer moulding	Specimen size is 400mmx400mm	Specimens are prepared as per ASTM standards.
3	Flexural fatigue analysis machine	30mmx5mmx200mm	Customized data logging system
4	Bi-axial tensile and compression test machine	Each hydraulic cylinder with a capacity of 30T loading	With Customized data logging system
5	Water treatment system	Capable to handle 40lpm to100lpm of water	Can be coupled to a cooling tower
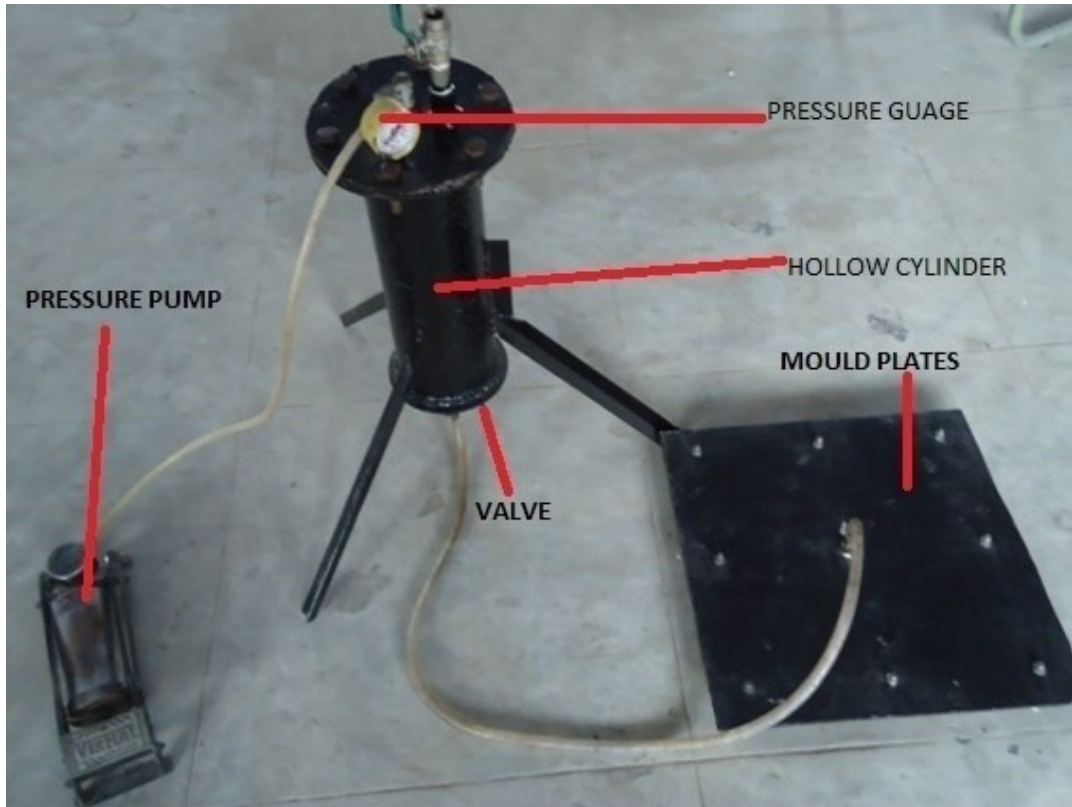
1. Resin Transfer Moulding(RTM)

2. Vaccum Assisted Resin Transfer Moulding (VARTM)

3. Vaccum Assisted Resin Transfer Moulding (VARTM)

4. Flexural Fatigue Machine

5. Bi-Axial Tensile and Compression Testing Machine

Chemical free water treatment system with Hydrodynamic Cavitation Treatment mechanism:

Apart from that the innovation center of department of mechanical engineering also hose the research activities pertaining to chemical free water treatment systems, an equipment was developed and put to use to precipitate the dissolved salts presently in the ground water. This research work is progressing with an objective of optimizing the process parameters to lower the dissolve salts concentration and hardness of the water. This machine is developed with an objective of finding a solution for Waste removal system's performance enhancement.

This research explores a potential solution to the problems that calcium carbonate scaling causes to water supply systems around the world. This chapter reviews the worlds growing need for need of water, defines the need of calcium carbonate scaling, and covers the project aims objectives, scopes and structure. The chapter provides a broad map of the issues that are explore in depth in subsequent chapters.
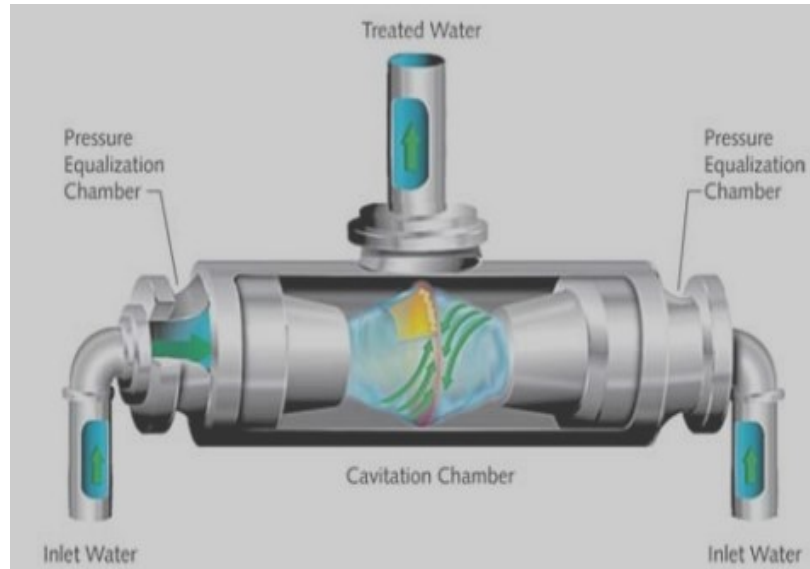
Schematic representation of Hydrodynamic Cavitation Treatment

Hydrodynamic Cavitation Treatment Assembly experimental set up

3.1.2 **Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.**

Yes, in the college every department has formed Department Research Committee (DRC). The DRC is responsible to facilitate and monitor funded and nonfunded projects. The activities of the committee are to monitor the research areas in departments.

The DRC constitutes the following members

a) Chairman (for a term of 2 years)

b) Head of the Dpeartment (Member)

c) Senior Professors of the Department (Members)

The major decisions that are taken by DRC are

Providing financial support towards the cost of publications.

➢ For National Conference Rs.1, 000.

➢ For National Journal Rs.1, 500.

➢ For International Conference Rs.2,000

➢ For International Journal Rs.2, 500.

Providing on-duty for research related work.

1. The teachers are given on duty (OD) for attending Seminars, Workshops / Conferences. The teachers who are pursuing PhD are given study leave for two months in every Academic Year.

2. Providing financial assistance for travelling to various organizations, training programmes, refresher courses, attending National, International Symposia and for undertaking field trips.

3. Encouraging the eligible faculty for attending the summer and winter schools at various IITs & NITs which offer high quality research opportunity for young Engineering, Management, Sciences and Humanities persons. The eligibility criterion is his/her academic qualification ME/ M.Tech/ M.Sc. / M.A, MBA. They should have outstanding academic record. Academic background shall include high ranks / marks in academics, Papers presented at seminars, projects executed, design contests participated, and any other achievements / awards / distinctions obtained.

3.1.3 **What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/projects?**

> ➢ Autonomy to the principal investigator
>
> ➢ Timely availability or release of resources
>
> ➢ Adequate infrastructure and human resources
>
> ➢ Time-off, reduced teaching load, special leave etc. to teachers
>
> ➢ Support in terms of technology and information needs
>
> ➢ Facilitate timely auditing and submission of utilization certificate to the funding authorities
>
> ➢ Any other

The principal investigator is fully autonomous and takes decisions for each like providing financial support towards the cost of publication, giving financial assistance for research in the form of projects, providing financial assistance for attending various training programs, refresher courses, providing financial assistance towards organizing Workshops / Seminars / Symposia / Conferences etc. The R & D Center is available for all teachers during the college hours.

A Research and Development Center for each Department is established which focuses on the recent Research areas of the concerned. The entire faculty pursuing Research can use the R&D Center at any moment of time. For any further clarifications/doubts the research scholars can meet the DRC.

> ➢ Faculty are given on-duty for attending Seminars, Workshops / Conferences etc.
>
> ➢ The faculty pursuing PhD are given study leave for two months in every year.
>
> ➢ The faculties who are pursuing PhD are given reduced workload of 6 hrs / week to facilitate their research.

3.1.4 **What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?**

Yes, the institution encourages the students in developing scientific temper and research culture and aptitude among the students. The students

of undergraduate research as well as post-graduate one year dissertations are encouraged to work in "R&D Center of JNTUH, in their final semester project training. Students also work with experienced faculty members on ongoing research projects. The students are also given opportunity to work with research organizations like CDFD-Hyderabad, DRDO-Hyderabad, BHEL- Hyderabad, CITD - Hyderabad.

UG and PG students are also encouraged to become members of professional societies like ISTE, and IETE. The College has CSI and ISTE student branches. The students are also encouraged to do their final year projects in college or nearby Industries. For example the following projects are developed by our students:

Department Name	Project Name
Computer Science & Engineering	➤ Feed Back System ➤ Knowledge Portal ➤ Souvenir Editor ➤ Maintenance Of College Website ➤ Campus Net
Electronics & Communication Engineering	➤ Object tracking system using GPS & GSM, ➤ Library automation using RFID ➤ Automatic timetable display ➤ Mobile jammer ➤ Simple low cost automatic water controller
Electrical & Electronics Engineering	➤ Solar Car ➤ Wireless Power Transmission ➤ Solar Street Light
Information Technology	➤ Home Automation System ➤ Veda- Registration Software. ➤ Colours - Registration Software ➤ Colours 2013 Website ➤ Virtual Tour ➤ Campus Net Android App
Mechanical Engineering	➤ Solar wheel chair ➤ Gocart ➤ Foot step power generator ➤ Reaping machine

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.

Here the list of faculty who actively involved in Research activities in college

S.No	Name	Dept	Specialization Area
1.	Dr. G. Madhusudhana Rao	EEE	Power Electronics and Drives
2.	Mr. Pavan Kumar	EEE	e-Battery
3.	G. Suresh Kumar Reddy	EEE	Solar Battery
4.	Dr. K.M.V. Madan Kumar	IT	Data Mining
5.	U. Aswani Kumar	IT	Data Mining
6.	V Ravi Kumar	IT	Data Mining
7.	M Aruna	IT	Big Data
8.	Dr. Arul Neyam	CIVIL	Structural Engineering
9.	Mr. Satya Sai	CIVIL	GIS
10.	Dr.D.Nageshwar Rao	ECE	VLSI
11.	Dr.S.Selvakumar Raja	ECE	Image processing
12.	Dr. Nallathai	ECE	Image Processing
13.	Dr. D.V. Ravi Shankar	MECH	Composite Materials
14.	K. Kishore Kumar	MECH	Composite Materials
15.	N. Pavani Kumari	MECH	Composite Materials
16.	A. Kiran Kumar Yadav	MECH	Composite Materials
17.	T. Dhanunjay Singh	MECH	Composite Materials
18.	K. Naveen Latha	MECH	Thermal Engineering
19.	N. Surya	MECH	Production Engineering
20.	Dr. A Suresh Rao	CSE	Data Mining
21.	Dr. S. Somaraju	CSE	Data Mining
22.	Dr. K.V. Prasad	CSE	Data Mining
23.	Dr. V.Srinivas	CSE	Cloud Computing
24.	K Ramesh	CSE	Data Mining
25.	Ch. Ravi	CSE	Data Mining
26.	P. Mahesh Kumar	CSE	Big Data
27.	A. Pramod Reddy	CSE	Natural Language Processing

3.1.6 Give details of workshops/ training programmes/ sensitization programmes conducted/organized by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and students.

The institution with focus on capacity building in terms of research and imbibing research culture among the staff and students organizes/ conducts various workshops/ training programmes. The following are the

various programmes conducted/ organized:

Department of CIVIL Engineering:

- Conducted work shop & training programs on Total Station
- Conducted technical seminar on concrete technology

Department of CSE:

- Conducted workshop on Ethical Hacking
- Conducted workshop on Cloud computing,
- Conducted workshop on Android applications
- Conducted workshop & Training on DB2 Tools
- Host every year student Technical fest, 'skhykar'.

Department of ECE:

- National level workshop on " Embedded systems"
- National conference on "Signal and Image Processing"
- National level workshop on MATLAB
- National level workshop on Robotics
- National Level workshop on PCB Design
- Host every year student Technical fest, 'eckta'

Department of EEE:

- Conducted Two day AAVISHKAR-2K14, Workshop on Smart Electrical Power grid.
- Conducted ISTE Guest Lecture on 'Cyber Laws and Intellectual Property'
- Conducted Guest Lecture on Indian power Sector Overview Steps Towards Smart grid Advances in Power Systems
- Conducted Guest Lecture on Power Electronics and Drives.
- Guest Lecture on Power Electronics and Drives.
- Guest Lecture on Control Systems ,
- Guest Lecture on Conservation on essentials of Life.

Department of IT:

- Conducted a seminar on "Technical Writing Skills"
- Conducted a seminar on "Do's and Don'ts of Research"
- Conducted a Practical Object Oriented Analysis and Design Workshop
- Conducted a workshop on Ethical Hacking

Department of Mechanical Engineering:

➢ One day workshop on **"R&AC"**

➢ One day workshop on **"Design of Experiments"**

➢ Two days' workshop on **"Composite material & manufacturing processes"**

➢ SDP-1 week (30/06/2014 to 6 /07/2014) - **"Modern Teaching trends in Scientific & Technical education"**

➢ One day Entrepreneur ship Orientation Performa conducted by **"NSIC"** for Mechanical & EEE

➢ One day workshop on **"HVAC"**

➢ Mechtalon 2k15 " A National Level technical fest"

3.1.7. Provide details of prioritized research areas and the expertise available with the institution.

The following are the prioritized research areas and expertise available with the institution:

Research Area	Dept	Expertise Faculty
VLSI	ECE	Dr. D. Nageshwar Rao
Image Processing	ECE	Dr. Selva Kumar Raja
Image Processing	ECE	Dr. Nalla Thai

Research Area	Dept	Expertise Faculty
Data Mining	CSE	Dr.ASuresh Rao
Data Mining	CSE	Dr.S.Somaraju
Data Mining	CSE	Dr. K. V. Prasad
Cloud Computing	CSE	Dr. V.Srinivas
Data Mining	CSE	Dr. A Rama Chandra Reddy
Data Mining	CSE	K Ramesh
Data Mining	CSE	Ch. Ravi
Big Data	CSE	P Mahesh
NLP	CSE	A Promod Reddy

Research Area	Dept	Expertise Faculty
DATA MINING	IT	Dr. K.M.V. Madan Kumar
DATA MINING	IT	U. Aswani Kumar
DATA MINING	IT	V. Ravi Kumar
BIG DATA	IT	M Aruna

Research Area	Dept	Expertise Faculty
Design of Inverters	EEE	Dr. G. Madhusudhana Rao
		Dr. S. Narasimha
		Y. Santhosh
Controlling of Micro	EEE	G. Suresh Kumar Reddy
		Dr. P. Shankar Babu
		S. Srinivas
		B. Sharath Kumar

Research Area	Dept	Expertise Faculty
Composite Materials	MECH	Dr. D. V. Ravi Shankar
Composite Materials	MECH	K. Kishore Kumar
Composite Materials	MECH	N. Pavani Kumari
Composite Materials	MECH	T. Dhanunjay Singh
Composite Materials	MECH	A. Kiran Kumar Yadav
Heat Transfer	MECH	Dr. V. Prabhakara Rao
Nano Materials & Nano	MECH	Dr.DSrinivasa Rao
Production	MECH	G. Sai Krishna Prasad
Thermal Engineering	MECH	N. Surya

3.1.8. Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

Our Institution promotes and supports for organizing lectures by inviting eminent Professors from different Universities to guide our faculty and students in research activities. Also, experts from various industries like TCS, Infosys, and Microsoft are invited for sharing the current trends of industrial orientation in inline to the student's curriculum.

3.1.9 **What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?**

The College has developed research culture among the faculty, as a result most of the faculty have registered for their part-time research programmes. The ambience of research in the college is evident by the publication of research papers by the staff and the research projects undertaken by the students. Faculty are given special leave and financial assistance as suggested by Advisory Committee.

About 20% of faculty are actively involved in Research Activities. To keep abreast of the new development in the respective areas of specialization, the teachers are encouraged to participate in National and International conferences, seminars, etc. Also, to attend refresher or orientation courses and the other training programs organized by the college and the other universities and the intuitions of the country. The college also grants on duty (OD) to the faculty for attending various programmes under the Faculty development Programme (FDP).

3.1.10 **Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land).**

No doubt, the institution is always insisting and creating awareness for the faculty to conduct/attend state/national level seminars, national/international conferences/workshops. The awareness about the latest research available at institute level is shared among the students and faculty. Apart from imparting knowledge from text book, the teaching - learning activity is made practical by giving assignments on various research topics, so that the students get initiated in reading the journals, technical papers. The student is motivated into creative thinking process in all spheres. Faculty are also advised to publish their research work in highest peered journals. Also, the Institute adheres to the policy of indulging the faculty in R & D activities directly or indirectly, and records the same as parameters for self-appraisal. Specifically, the students of

Electrical Engineering, Mechanical Engineering are engaged with process of undergoing industrial visit as a mandate in due course of time.

3.2   Resource Mobilization for Research

3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization.

The following table indicates details of expenditure for various activities:

Iteam (Staff Development)	Budgeted for (2016-17) in Lacs	Expenditure for (2016-17) in Lacs	Expenditure for (2015-16) in Lacs	Expenditure in (2014-15) in Lacs
Research	12.0	10.06	5.44	30.0
Seminars	4.0	3.5	3.05	1.00
Membership fees	3.0	2.4	1.61	0.46
National and International conferences	6.0	5.2	4.74	3.78
Total	25	21.16	15.84	35.24
Grand Total	97.24			

3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

As and when required the faculty either independently or over and above the research funding from an agency, are provided money by the management. Every major department of the institute has nearly three to six faculty who are actively engaged in research activities. The seed money is disbursed through the R & D cell A/C only, the account details as follows:

Name of the Bank: South Indian Bank

Account Number: 0696073000000041

Location: Meerpet, Hyderabad.

3.2.3 **How does the various departments/units/staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.**

The institute has been conducting basic degree programs and in these degree programs there is no provision for research work. However, for the inculcation of research aptitude in the students, the institute takes several initiatives like interdisciplinary seminars on the current, relative and burning issues in Electronics & Communication, Power Electronics, Computer & Software engineering, Mechanical and IT.

Many industrial experts come and interact with the students on current issues for technical and non-technical for all trades of B.Tech, M.Tech and MBA students.

3.2.4 **How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?**

The following are various equipment facilities available to the staff and students. The major research facilities on the campus are -

➢ R&D Center, Library, Internet, LCD Projectors and laboratories.
➢ To present research papers/ project by the student and faculty collectively, there is a separate space to study in the library,
➢ Extended library hours to staff and student,
➢ Research journals, subscription to e-journal,
➢ Computers and 24 X 7 Internet Connectivity through Wi-Fi.

3.2.5 **Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If 'yes' give details.**

Yes, the institution has received the grant from AICTE under MODROBS for the department of EEE an amount of of Rs 9,15,026 lakhs for modernization of lab.

Also, the Dept. of Mechanical Engineering has received a Bi-axial Tenstile Testing Machinery from SVS Hydraulics to cater the needs of students to perform various tests.

3.2.6 **Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.**

The institute supports the faculty in developing the requirements by the various organizations in the form of consultations. Various proposals with respect to projects were initiated by the faculty of the institution.

3.3 Research Facilities

3.3.1 **What are the research facilities available to the students and research scholars within the campus?**

The following are the research facilities available at TKRCET

I.   Computing facilities:
   - Computers, Servers with Advanced Architecture
   - Simulation & Testing Software
   - Wi-Fi facility throughout the campus
   - Reliable & Redundant high bandwidth Internet facilities

II.   Labs with State-of-the-art dedicated equipment to carryout experiments and testing

III.   Access to resourceful library with National & International Journals and Digital library.

3.3.2 **What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?**

The institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research are as under:

Enrichment of research facilities by
   - Developing separate research laboratories.
   - Purchasing sophisticated equipment.
   - Subscribing research journals and e-journals.
   - Facilitating computer- internet facilities.
   - Purchasing software useful for research work.

Faculty members are encouraged for

➢ Pursing PhD work.

➢ Major and minor research projects.

➢ Participating in up-grading programmes viz. Seminars, Workshop, conferences and publish their research work in journals.

➢ Established more MOUs with Industries, Academic Institutions and Research Centers.

3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities?? If 'yes', what are the instruments/ facilities created during the last four years?

Yes, the institution has received the grant from AICTE under MODROBS for the department of EEE an amount of Rs 9,15,026 lakhs for modernization of lab.

Also, the Dept. of Mechanical Engineering has received a Bi-axial Tenstile Testing Machinery from SVS Hydraulics to cater the needs of students to perform various tests

3.3.4 What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?

The innovation center for composites under department of Mechanical Engineering helps the students and research scholars outside the campus by the machinery developed across the center. Also, the research center for Electrical Engineering supports the students to perform research activities.

3.3.5 Provide details on the library/ information resource center or any other facilities available specifically for the researchers?

➢ TKRCET library is well equipped with the modern facilities like Internet, WiFi, Computer, Photocopier, Scanner, Printer, etc.

➢ The library has subscribed to digital research journals from various disciplines that help to gain a broader perspective in the field of research.

➢ Reference books from various subjects are helpful to the faculty and student while doing this research work.

3.3.6 **What are the collaborative research facilities developed / created by the research institutes in the college? For ex. Laboratories, library, instruments, computers, new technology etc.**

To enhance industry institute interaction at TKRCET Department of Mechanical Engineering has collaborated with SVS Hydraulics LTD to establish Center for Composits (CFC). The Department of Computer Science & Engineering, Information Technology, have collaborated with Mavin Software Solutions.

3.4 Research Publications and Awards

3.4.1 **Highlight the major research achievements of the staff and students in terms of**

➤ **Patents obtained and filed (process and product):**

A Patent is applied by Dr. Durai Arulneyam, Professor& Head Dept. of Civil Engg. Has applied for patent on "Portable Apparatus to bind disrupted solid surfaces" vide Application No. E-12/76/2017/CHE. Docket No. 7938.

➤ **Original research contributing to product improvement**

A portable apparatus to bind two or more disrupted solid surfaces is provided. The apparatus includes an upper chamber, a lower chamber, a binding unit, a servomotor, a first switch, a first motor, a second switch, a cylindrical unit, a second motor, a third switch, and a power supply. The upper chamber receives a chemical compound through an inlet port. The lower chamber integrated with the upper chamber to receive chemical compound in order to heat and further melt the chemical compound.

➤ **Management Information System**

The software was developed by the computer science and Engineering 2014-15 batch students as an Academic Project and it has been used as a software to know the Feed Back of the faculty.

➤ **Hostel Management System**

The software was developed by the computer science and Engineering 2014-15 batch students as an Academic Project and it has been used as a software to know the college updates.

- Information Technology Students of batch 2009-10 undertook the Project **Home Automation System.**
- Electrical and Electronics Engineering 2009-10 batch students developed **Wireless Power Transmission** as an Academic Project.
- Information Technology, 2013-14 batch students developed **"Prathibha"- Registration Software**.
- Information Technology students developed **"Virtual Tour".**
- Information Technology students developed **"Campus Net"** Android App.
- Research studies or surveys benefiting the community or improving the services
- Research inputs contributing to new initiatives and social development

3.4.2 Does the Institute publish or partner in publication of research journal(s)?   If 'yes', indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?

The phenomenon of Institute publishing Journals of its own publication house is advised by the advisory committee of the Institute and made an agenda point for the coming BOG Meeting.

3.4.3 Give details of publications by the faculty and students:

- **Publication per faculty**   :

Number of publications listed in International Database (for Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) :   list is as follows of few faculty and students

S.No	Title	Author Name	Edition	Publication
1	Damping Control of Distributed Power Flow Controller for Improving the Transient Stability using Fuzzy Logic Controller	Dr.G.Madhusudana Rao	Dec-16	IJECIERD
2	Output Voltage Control of a 3-Phase Multilevel Inverter Considering Input Voltage Fluctuations using PI-Technique	Dr.S.Narasimha	Oct-16	IJRASET
3	Transient Performance Improvement using Fuzzy Logic Controller with SFCL	Mrs.V.Swarupa	Feb-17	IJSETR
4	Wind Energy Basec Adaptive PI Controlled STATCOM for Voltage Regulation	Mrs.V.Swarupa	Oct-16	IJATIR
5	Npc Based 5 Level Two - Stage Energy Storage Solar Photovoltaic - Based Stand - Alone Scheme for Rural	Mrs.V.Swarupa	Sep-16	IJR
6	Improved Power Factor In Bridgeless Converter by Fuzzy Controlled Based SMPS Applications	Mr.B.Shankaraiah	Aug-16	IJTES
7	Fast Energy Storage with Bi-Directional Controlled Converter Super Capacitor Based UPQC	Mr.B.Shankaraiah	Aug-16	IJTES
8	Modeling of PV Cell Based H-Bridge Multilevel Topology Fed Distributed Generation Scheme using Unique Control Strategy	Mr.B.Shankaraiah	Aug-16	IJTES
9	Renewable based DC Micro-grid using Fuzzy Control Technique for Industrial Applications	Mrs.V.Sangeeta Sarali	Jan-17	IJSETR
10	Three Phase Diode Clamped Inverter using SVPWM Method for Induction Motor Fed ElectricVehicle Application	Mr.M.Chinnalal	Feb-17	IJSETR
11	A Multi Input High Gain DC-DC Converter PMSM Drive	Mr.M.Chinnalal	Aug-16	IJSETR

12	A Resonant Step-Down Modular Multilevel DC-DC Converter for Induction Motor Application	Mr.S.Manohar Reddy	Aug-16	IJSETR
13	Fuzzy Controlled Isolated Micro Grid Based on Battery Storage System Using Renewable Rnergy Sources	Mr.A.Anjan Kumar Yadav	Sep-16	IJATIR
14	Fuel Cell Fed Third Harmonic SPWM Baesd Multilevel CSI for Industrial Applications	Mr.G.Mallikarjuna	Feb-17	IJSETR
15	Adaptive Variable Speed Control Scheme for Wind Based on PFC of BLDC Drive Applications	Mr.B.Sharath Kumar	Feb-17	IJSETR
16	Athree-Phase Harmonics Elimination Method for Micro-Grid Operations	Mr.B.Sharath Kumar	Oct -16	IJSETR
17	Application of FCL &SFCL in Distributed Generated System	Mrs.B.Divya	Oct-16	IJR
18	Hybrid system with multy - connected boost converter	Mr.S.Srinivas	Jun-16	IJSETR
19	A New Fuzzy Controlled PFC Baesd BL-CSC Converter for Grid Coneected Application	Mrs.B.Divya	Sep-16	IJATIR
20	Coupled Inductor and Switched-Capacitor Integrated High Gain Closed Loop Controlled DC/DC Converter for DC Motor	Mrs.B.Divya	Sep-16	IJSETR
21	Design and Simulation of SFCL in Grid Connected Applications	Mr.N.Shankar	Nov-16	IJSETR
22	Dynamic Voltage Restorer for Power Quality Improvement with d-q Reference Frame	Mr.K.Subhash	Oct-16	IJARF

S.No	Title	Author Name	Publication	Edition
23	ESAM Cloud The Framework Of Efficient Social Video Sharing And Adaptive Mobile Video Streaming In The	K.M.V.MADAN KUMAR	IJTES	VOLUME 2
24	Horde Mining Forecasting Behavioral Outcomes	K.M.V.MADAN KUMAR	IJTES	VOLUME 2
25	Security And Privacy To Unsecured Distributed Data Analysis.	J.JYOTSNA	IJTES	VOLUME 2
26	Mechanism To Filter Unnecessary Message Form OSM User Screen.	J.JYOTSNA	IJTES	VOLUME 2
27	Mining Sequential Patterns With Time Intervals By Fuzzy	K M V MADAN KUMAR	IJTES	VOLUME 2
28	An Advanced Model For Mining Time Interval Sequential Patterns In Stream.	K M V MADAN KUMAR	IJTES	VOLUME 2
29	Policy Based File Assured Deletion With Secure Overlay Cloud Storage.	V.RAVI KUMAR	IJCSMC	VOLUME 2
30	A Protected And Distributed Structure To Discover And Allocate Required	V.RAVI KUMAR	IJRRECS	VOLUME 1
31	A Model For Determining The Origin Of A Packet To Find Real Sources Of Attacks.	C JAYA LAKSHMI	IJERT	VOLUME 2
32	Discovery Of URL Prototype Intended For Web Page De-Duplication.	M.ARUNA	IJCSMC	VOLUME 1
33	Interpretation Of Crowd Sourcing Behavioral	J.JYOTSNA	IJRRECS	VOLUME 1
34	Offensive Decoy Technology For Cloud Data Attacks	G.AVINASH REDDY	IJPTT	VOLUME 3
35	Safety Management For Significant Regions In A	T.RADHIKA	IJCER	VOLUME 2
36	Reputable Re-Encryption In Unreputable Clouds.	K.NARESH	IJCSMC	VOLUME 2
37	A Novel Feature Subset Algorithm For High	A.HARPIKA	IJRRECS	VOLUME 1
38	Performance Evaluation Of Cluster Computing	D.KAVITHA	IJESRT	VOLUME 2
39	A Novel Approach Of Improving Security And	D.KAVITHA	IJTES	VOLUME 2
40	A Protected Erasure Code Based Cloud Storage	T. MADHUMATHI	IJCSMC	VOLUME 2

41	Extracting Contracts For Business Events And	B. SHIVANI	IJTES	VOLUME 2
42	A Novel Approach Of Robust Segment Based Records	V. RAVI KUMAR	IJTES	VOLUME 2
43	Fast Clutching Based Feature Sub Category Assortment	C JAYA LAKSHMI	IJTES	VOLUME 2
44	Improved With Adapted Mobile Search Engine	G.AVINASH REDDY	IJTES	VOLUME 2
45	A Model For Analysis Of Categorical Data By	U. ASWANI KUMAR	IJRIT	VOLUME 1
46	Analogous Entity Mining From Comparative Query	U. ASWANI KUMAR	IJRRECS	VOLUME 1
47	Portable apparatus to bind disrupted solid surfaces	Dr. Durai Arulneyam	Vol.6 Issue2 Feb 2017	IPINDIA
48	Theoretical Comparative Study of FRP composites with steel rebars in civil engineering	Mr. A.Ramesh	Vol.6, Issue2 Feb-2017	IJMER
49	Study of high strength self compacted concrete subjected to various temperatures	Ms. A.Swetha	Vol.6, Issue2 Feb-2017	IJMER
50	Theoretical Comparative Study of FRP composites with steel rebars in civil engineering	Mr. G.Thirupathi	Vol.6, Issue2 Feb-2017	IJMER
51	Studies on climatic Morpho Genesis, Ground water assessment, development and management of lower Krishna river in Andhra Pradesh	Mr. Satya Sai	Vol.6, Issue2 Feb-2017	IJMER
52	Experimental investigation on Recon fibre reinforced concrete in addition with pozzolanic materials	Mr. A.Ramesh	Feb-2017	ASDF
53	Study of bitumen mix properties by using waste polyethylene	Ms. A.Swetha	Feb-2017	ASDF
54	Damping Control of Distributed Power Flow Controller for Improving the Transient Stability using Fuzzy Logic Controller	Dr.G.Madhusudana Rao	Dec-16	IJECIERD
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56	Transient Performance Improvement using Fuzzy Logic Controller with SFCL	Mrs.V.Swarupa	Feb-17	IJSETR
57	Wind Energy Basec Adaptive PI Controlled STATCOM for Voltage Regulation	Mrs.V.Swarupa	Oct-16	IJATIR
58	Npc Based 5 Level Two - Stage Energy Storage Solar Photovoltaic - Based Stand - Alone Scheme for Rural Deployment	Mrs.V.Swarupa	Sep-16	IJR
59	Improved Power Factor In Bridgeless Converter by Fuzzy Controlled Based SMPS Applications	Mr.B.Shankaraiah	Aug-16	IJTES
60	Fast Energy Storage with Bi-Directional Controlled Converter Super Capacitor Based UPQC	Mr.B.Shankaraiah	Aug-16	IJTES
61	Modeling of PV Cell Based H-Bridge Multilevel Topology Fed Distributed Generation Scheme using Unique Control Strategy	Mr.B.Shankaraiah	Aug-16	IJTES
62	Renewable based DC Micro-grid using Fuzzy Control Technique for Industrial Applications	Mrs.V.Sangeeta Sarali	Jan-17	IJSETR
63	Three Phase Diode Clamped Inverter using SVPWM Method for Induction Motor Fed ElectricVehicle Application	Mr.M.Chinnalal	Feb-17	IJSETR
64	A Multi Input High Gain DC-DC Converter PMSM Drive	Mr.M.Chinnalal	Aug-16	IJSETR
65	A Resonant Step-Down Modular Multilevel DC-DC Converter for Induction Motor Application	Mr.S.Manohar Reddy	Aug-16	IJSETR
66	Fuzzy Controlled Isolated Micro Grid Based on Battery Storage System Using Renewable Rnergy Sources	Mr.A.Anjan Kumar Yadav	Sep-16	IJATIR
67	Fuel Cell Fed Third Harmonic SPWM Baesd Multilevel CSI for Industrial Applications	Mr.G.Mallikarjuna	Feb-17	IJSETR
68	Adaptive Variable Speed Control Scheme for Wind Based on PFC of BLDC Drive Applications	Mr.B.Sharath Kumar	Feb-17	IJSETR

69	Athree-Phase Harmonics Elimination Method for Micro-Grid Operations	Mr.B.Sharath Kumar	Oct-16	IJSETR
70	Hybrid system with multy - connected boost converter	Mr.S.Srinivas	Jun-16	IJSETR
71	Application of FCL &SFCL in Distributed Generated System	Mrs.B.Divya	Oct-16	IJR
72	A New Fuzzy Controlled PFC Baesd BL-CSC Converter for Grid Coneected Application	Mrs.B.Divya	Sep-16	IJATIR
73	Coupled Inductor and Switched-Capacitor Integrated High Gain Closed Loop Controlled DC/DC Converter for DC Motor	Mrs.B.Divya	Sep-16	IJSETR
74	Design and Simulation of SFCL in Grid Connected Applications	Mr.N.Shankar	Nov-16	IJSETR
74	Dynamic Voltage Restorer for Power Quality Improvement with d-q Reference Frame	Mr.K.Subhash	Oct-16	IJARF
76	Initiation and Enhancement of Precipitation formation by VORTEX mechanism	K.Naveena Latha, Dr. P. Ram Reddy, Dr. D.V. Ravi Shanker	IJMEAR, ISSN :2249-6564	Vol04, Issue 01, 2013
77	Reducing of a scaling in a cooling Tower by Aeration process	K.Naveena Latha, Dr. P. Ram Reddy, Dr. D.V. Ravi Shanker	International journal of Engineering studies	Volume 8, Number 2,(2016)
78	Design & Development of Mechanized Dissolved salt concentration regulator	K.Naveena Latha, Dr. P. Ram Reddy, Dr. D.V. Ravi Shanker	IOSR (IOSR-JMCE)	volume 13,Issue 6 version.VI (Nov-Dec 16)
79	Design and Analysis of Deep Drawing Process on angular Deep Drawing Dies for Different Anisotropic Material	P Venkateshwar Reddy, Perumalla Janaki Ramulu, G Sandhya Madhuri, Dasari Govardhan, P V S Ram Prasad	Materials Science and Engineering 149 (2016) 012142	doi:10.1088/1757-899X/149/1/012142
80	The effect of formability studies on DP steel with different geometries of die/blank holder and punch radii in angular deep-drawing dies	P. Venkateswar Reddy, S. Hari Prasad, P. Janaki Ramulu, Sirish Battacharya, Daya Sindhu Guptha	Applied mechanics and materials Vols. 813-814 (2015) pp 269-273	doi: 10.4028/wwwscientific.net/AMM 813-814.269

81	Effect of mechanical properties on Deep drawing formability prediction	U. Pranavi, P. Venkateshwar Reddy, K. Lavanya, NV NarasimhaCharyulu, Perumalla Janaki Ramulu	International Journal of Current Engineering and Technology, Special Issue 2, 303-305,	DOI:http://Dx.Doi.Org/10.14741/Ijcet/Spl.2.2014.55
82	Computational Fluid Dynamics Study of IC Engine - Energy Recovery System	Shaik Mohammad Yahiya, P. Venkateshwar Reddy, G. Upendra Rao	International Journal of Scientific and Research Publications	Volume 7, Issue 1, January 2017
83	Effect of circular and rectangular draw beads on hemispherical cup forming, Comparing with classical tool design using finite element analysis	P. Venkateshwar Reddy, Perumalla Janaki Ramulu, A. Lavanya, U. Pranavi, N. V. Narasimha Charyulu	SMFRA-2014	November 27-28, IIT Bombay, pp. 51-53.
84	Experimental and numerical analysis on deep drawing rectangular cups made of different anisotropic materials	P. Venkateshwar Reddy, J. Ramesh, P. Srinivasa Rao and P. Janaki Ramulu,	ICAMM	2016
85	Optimization of Process Parameters of Delamination Zone for Drilled Holes in FRP Composites in CNC Machine	Satish Kumar, Pavan Bagali, P.Venkateshwar Reddy, P. Janaki Ramulu	International Conference on Material, Manufacturing and Design	2016
86	Design and Analysis of Deep Drawing Process on angular Deep Drawing Dies for Different Anisotropic Material	P Venkateshwar Reddy, Perumalla Janaki Ramulu, G Sandhya Madhuri, Dasari Govardhan, P V S Ram Prasad	IConAMMA	2016
87	The effect of formability studies on DP steel with different geometries of die/blank holder and punch radii in angular deep-drawing dies	P. Venkateswar Reddy, S. Hari Prasad, P. Janaki Ramulu, Sirish Battacharya, Daya Sindhu Guptha	ICMME	2015

88	Effect of mechanical properties on Deep drawing formability prediction	U. Pranavi, P. Venkateshwar Reddy, K. Lavanya, NV NarasimhaCharyulu, Perumalla Janaki Ramulu	ICAMS	2014
89	Prediction of Multi-hole extrusion process for making circular and square cross sectional bars	N. V. Narasimha Charyulu, Perumal la Janaki Ramulu, B. Dheeraj Reddy, K. Madhu Babu,	National Conference on Innovation in Futuristic Materials &	2014
90	Formability Studies on Aluminum Alloy Sheets through Deep Drawing Process	U. Pranavi, P. Venkateshwar Reddy, Perumalla Janaki Ramulu	All India Manufacturing Technology Design and Research AIMTDR-2014	2014
91	Prediction of forming behavior of dual phase (DP) steel during deep drawing process	P. Venkateswar Reddy, A. Lavanya, S. Hari Prasad, P. Srinivasa Rao, P. Janaki Ramulu	National conference of Andhra Pradesh Academy of Sciences	November 2014
92	Parametric study on equal channel angular extrusion process for non ferrous alloys	A. Lavanya, P. Venkateswar Reddy, J. Hari Chandana, P. Srinivasa Rao, P. Janaki Ramulu	National conference of Andhra Pradesh Academy of Sciences	November 2014
93	Tensile behavior prediction of FSW sheet using ROM method	N.V.Narasimha Charyulu, B. Dheeraj Reddy, P. Venkateshwar Reddy, P. Srinivasa Rao, P. Janaki Ramulu	National conference of Andhra Pradesh Academy of Sciences	November 2014
94	Experimental Investigation on PROELL governor to increase minimum speed	D. Srinu, S. Giribabu, M. Nageshwar Rao	IJMTER	2016

95	Improving the Overall heat transfer coefficient of an Air Preheater by Design, Fabrication and CFD Analysis	M. Nageshwar Rao	NATIONAL CONFERENCE on Developments, Advances & Trends in Engineering Sciences	2015
96	Improving the Overall heat transfer coefficient of an Air Preheater by Design, Fabrication and CFD Analysis	M. Nageshwar Rao	IJERA	ISSN: 2248 - 9622
97	Non-chemical water treatment by Hydro-Dynamic Vortex precipitation mechanism	K.Naveena Latha, Dr. P. Ram Reddy, Dr. D.V. Ravi Shanker	ICRIEAT-2016	Aurora's scientific, on 22nd & 23rd technological & Research Academy, 2016
98	Experimental Investigation on WATT governor to increase minimum speed	S. Giribabu, P. Shashidhar Reddy, U. Nagamani	IJSRP	2015
99	Design and analysis of Modified WATT Governor	S. Giribabu, P. Shashidhar Reddy, U. Nagamani	IJSRP	2016
100	Mechanical Property Evaluation Of Friction Seam Welds Of Aluminium Alloy Aa 6063	Nenavath Surya, B.Vijay Kumar, T.Mohandas	1st kiit international symposium on	2013
101	A Comparative Evaluation of Gas Tungsten Arc Welds And Friction Seam Welds of Aluminium Alloy	Nenavath Surya, B.Vijay Kumar, T.Mohandas	National Welding Seminar, Bangulure, Karnataka	2013
102	Recycling of Machining Chips Employing Friction Stir Extrusion Process (FSEP): A Review	N. Surya, K. Eshwara Prasad, D.V. Ravi Shankar, T. Mohandas	Research India Publication IJMER Paper Code: 52918	2017
103	Static and dynamic deformation of railway wagon wheel and track with variegated materials	P.Anudeep S.Upender K.Ashok	IJSETR Volume 5,Issue 10	2016

104	Dynamic analysis of watt and modified watt governor to increase minimum speed	Surarapu Giribabu Uotkuri Nagamani Mekala Rajitha	SJIF	2016
105	Optimal Design And Performance Analysis Of Heat Exchangers Using Catia And Ansys	A.Nalini Deepthi K.Ashok P.Anudeep S.Upendar	IJETR Volume3, Issue 11	2015
106	Experimental Investigation On Surface Characterization Of Nickel Coated High Speed Steel Using Scanning Electron Microscopy And Energy Dispersive Specteoscopy	Sk.S.Mubeena P.Anudeep	IJERA	2015
107	Analysis of Contact Stresses at Thohoidal Gearing by Numeric Approach	P.Anudeep A.Nalini Deepthi	IJMER	2016
108	Low Resource Fast Operation Scheduling In Mesochronous Design	Mrs.K.Sukanya	IOSR	Volume 11, Issue 4, Ver. I (Jul.-Aug .2016),
109	A Fast Locking Analog PLL with De-skew Buffer"	P. Sridevi	International Journal of Technology and Engineering	ISSN: 2320-8007 on March, 2014
110	"A Faster Carry Save Adder in Radix-8 BothEncoder Multiplier	K. Chandana Reddy	International Journal of Technology and Engineering Science	ISSN: 2320-8007
111	"Implementation of scientific calculator using CORDIC Algorithm on FPGA"	Mrs. B.Swapna Ms. S.Sai Sree Andal	IJMETMR	VOLUME 2
112	ESAM Cloud The Framework Of Efficient Social Video Sharing And Adaptive Mobile Video Streaming In The Clouds	K.M.V.MADAN KUMAR	IJTES	VOLUME 2
113	Horde Mining Forecasting Behavioral Outcomes	K.M.V.MADAN KUMAR	IJTES	VOLUME 2
114	Security And Privacy To Unsecured Distributed Data Analysis.	J.JYOTSNA	IJTES	VOLUME 2
115	Mechanism To Filter Unnecessary Message Form OSM User Screen.	J.JYOTSNA	IJTES	VOLUME 2

116	Mining Sequential Patterns With Time Intervals By Fuzzy	K M V MADAN KUMAR	IJTES	VOLUME 2
117	An Advanced Model For Mining Time Interval Sequential Patterns In Stream.	K M V MADAN KUMAR	IJTES	VOLUME 2
118	Policy Based File Assured Deletion With Secure Overlay Cloud Storage.	V.RAVI KUMAR	IJCSMC	VOLUME 2
119	A Protected And Distributed Structure To Discover And Allocate Required Information.	V.RAVI KUMAR	IJRRECS	VOLUME 1
120	A Model For Determining The Origin Of A Packet To Find Real Sources Of Attacks.	C JAYA LAKSHMI	IJERT	VOLUME 2
121	Discovery Of URL Prototype Intended For Web Page De-Duplication.	M.ARUNA	IJCSMC	VOLUME 1
122	Interpretation Of Crowd Sourcing Behavioral Consequences.	J.JYOTSNA	IJRRECS	VOLUME 1
123	Offensive Decoy Technology For Cloud Data Attacks	G.AVINASH REDDY	IJPTT	VOLUME 3
124	Safety Management For Significant Regions In A Trusted Cloud Computing.	T.RADHIKA	IJCER	VOLUME 2
125	Reputable Re-Encryption In Unreputable Clouds.	K.NARESH	IJCSMC	VOLUME 2
126	A Novel Feature Subset Algorithm For High Dimensional Data.	A.HARPIKA	IJRRECS	VOLUME 1
127	Performance Evaluation Of Cluster Computing	D.KAVITHA	IJESRT	VOLUME 2
128	A Novel Approach Of Improving Security And Efficiency In Element Based File Sharing.	D.KAVITHA	IJTES	VOLUME 2
129	A Protected Erasure Code Based Cloud Storage Depository System	T. MADHUMATHI	IJCSMC	VOLUME 2
130	Extracting Contracts For Business Events And Temporal Constraints In Assistance	B. SHIVANI	IJTES	VOLUME 2

131	A Novel Approach Of Robust Segment Based Records Maintains	V. RAVI KUMAR	IJTES	VOLUME 2
132	Fast Clutching Based Feature Sub Category Assortment Algorithm For High Dimensional Data	C JAYA LAKSHMI	IJTES	VOLUME 2
133	Improved With Adapted Mobile Search Engine	G.AVINASH REDDY	IJTES	VOLUME 2
134	A Model For Analysis Of Categorical Data By Advanced Clustering Method	U. ASWANI KUMAR	IJRIT	VOLUME 1
135	Analogous Entity Mining From Comparative Query	U. ASWANI KUMAR	IJRRECS	VOLUME 1
136	"BC Model of Financial Inclusion: Through Business Correspondents' Perspective"	Dr.B.Renuka	Bi-Annual pioneered Journal DAWN	ISSN No: 2348-0092,23rd
137	"EFFECTIVENESS OF FINANCIAL INCLUSION THROUGH BC MODEL: FROM THE PERSPECTIVE OF ACCOUTN HOLDERS	Dr.B.Renuka	Sumedha Journal of Management	ISSN No: 2277-6753., January 2015
138	FINANCIAL INCLUSION THROUGH BUSINESS CORRESPONDENT MODEL:AN EMPIRICAL STUDY ON PERCEPTION OF ACCOUNT HOLDERS	Dr.B.Renuka	International Journal "Corporate Mantra"	ISSN No: 2231-3397., ., January 2015
139	A Study on Drug Promotional Practices in Hyderabad	K.Gyaneshwari	IJAR	ISSN No: 2249-555-X.
140	"Influence of Pharmaceutical Marketing on Prescription Practices of Physicians"	K.Gyaneshwari	Paripex	ISSN No: 2250-1991
141	A Study on consumer buying behavues towards OTC Products"	K.Gyaneshwari	IJMSRR	ISSN No: 2349-6738,
142	A Study on Consumer Behaviour in a world of economic instability"	K.Gyaneshwari	IJMDRR	ISSN NO: 2395-1877,
143	A Study on Customer relationship management in selected retail outlets"	K.Gyaneshwari	IJMDRR	ISSN No: 2395-1877,

3.4.4 Provide details (if any) of

i. Research awards received by the faculty

Dr. S. Rajesham Professor and Head Department of Mechanical Engineering received best paper award from IIM Coimbatore.

ii. Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally.

Yes, the TKRCET received an award from World HRD Congress for best institute in placement activities.

iii. Incentives given to faculty for receiving state, national and international recognitions for research contributions

Yes, Incentives like leave and financial assistance are given to the faculty for attending State/National/International conference and seminars. The special honor is given to teachers for their achievement.

3.5. Consultancy

3.5.1 Give details of the systems and strategies for establishing institute-industry Interface?

Appreciating the paramount significance and unparalleled contributions of the industry-institute dynamic interactions, our College has been giving top priority to more lively and meaningful linkages with a myriad of industrial houses like SVS Hydraulics, Andromeda Energy Systems, Mavin Value Creations. To keep its entities abreast of the latest changes in the industrial world, a professional institute should have close linkages with the real business world. Based on this premise the research committee makes concerted endeavors towards organizing institute-industry interfaces at different levels.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

TKRCET inducts some staff purely to carryout research development and consultancy. They concentrate on development works and market the ideas as a product or a service to other academic institutes and also to industry.

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

The institute encourages the staff to utilize their expertise at different organizations. Most of our staff members from various departments deliver their lectures in various colleges. Institute promotes faculty members and staff members to attend professional training programmes.

The civil engineering dept. provides industry-environment friendly activities, a few proposals were made under the guidance and leadership of Prof. G.Durga Prasad and Dr. Durai ArulNeyam which are as follows:

1. Reuse of Concrete debris from dismantled obsolete buildings and roads as aggregate in concrete works

2. Reclamation and reuse of waste sand from foundry Industry in and around Hyderabad as fine aggregate mortar and concrete

3. Reuse of waste powder from flooring stone polish industry such as marble powder, granite powder, tandoori stone powder etc., in concrete

4. Remediation measures for improvement quality of Musi River Water

5. Analysis of tank bund water for industrial effluents and remedial measures.

3.5.4. List the broad areas and major consultancy services provided by the Institution and the revenue generated during the last four years.

Limited consultancy has been provided in the areas of software development, electrical equipment installation and testing. The following are some of the consultancy works taken up:

➢ Technical support and consultancy are provided to Ikon global Hospital the development of 'Hospital management system software' to serve the requirements of Administration wing. (Income generated revenues of Rs.2,00,000)

➢ Erection of solar energy system at the campus.

➢ Consultancy is provided to the identifying and solving the problem in Electrical Machine Maintenance.

3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

The revenue generated from the consultancy will be distributed as 40% share to the students for their activities and 60% share to the staff for their activities.

3.6 Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 How does the institution promote institution-neighborhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

The College has one NSS Unit with 100 students, and with 2 Programme Officers. College also involves all the faculty members, All the students at the entry level are encouraged to join NSS. NSS volunteers are involved in the following:

1. **Environment Enrichment and Conservation:**
   - Plantation of trees, their presentation and upkeep.
   - Creating tree consciousness among the community.
   - Construction of roads, village streets, drains etc., so as to keep the environment clean.
   - Popularization land construction of Gobar Gas Plants.
   - On 14th Aug 2015 a plantation programme was conducted by NSS Unit TKRCET at Hasthinapuram.

2. Health, Family Welfare & Nutrition Programmes:

➢ Programmes of mass immunization, Blood Donation by willing NSS volunteers and preparation of inventory of blood groups of potential blood donors.

➢ Provision of safe and clean drinking water supply.

➢ A "Health and Wellness" programme was organized by NSS Unit in collaboration with National Institute of Nutrition on 16th July, 2013.

3. Social Service Programmes:

➢ Work with the organizations of child welfare.

➢ Work in institutions for physically challenged and mentally retarded.

➢ Work in Cheshire homes, orphanages, homes for the aged etc.

➢ Work in welfare organization of women

NSS Unit, TKRCET voluntarily visited an Orphanage "Happy Care Foundation" and helped them by raising funds from students and staff of the college. An amount of Rs. 11254/- was handed over to the in-charge of the Orphanage on 18.02.2014.

NSS Unit TKRCET collected clothes from staff and students and handed over to the poor in the nearby slum area 10th July, 2014.

4. Production Oriented Programmes:

➤ Working with people along with explaining and teaching improved agricultural practices.

➤ Rodent control and pest management

➤ Weed control.

5. Education and Recreation:

➤ Adult Education (Short-duration programme)

➤ Work in creches. o Organisation of Youth Clubs.

➤ Programmes including discussion on eradication of social evils.

3.6.2 What is the Institutional mechanism to track students' involvement in various social movements / activities which promote citizenship roles?

National Service Scheme (NSS): The students are recruited as volunteers based on their consistent academic performance, participation in social/ extracurricular activities in the past. Their voluntary participation is given utmost priority besides the above criteria. The volunteers are allowed to participate in the social activities with prior communication from the NSS Programme Officer of the College. The activities are planned at the start of the academic year by the Committee Constituted at the College level. Each volunteer is motivated and allowed to participate for 120 hours of voluntary service per year for two years and in addition to this, volunteers are monitored so that they contribute for the social service in a Special Camping Programme with a Theme as mentioned by JNTUH

1. On 2nd Oct, 2015 the NSS volunteers of TKRCET participated in a progamme where Gandhi Jayanthi was promoted as khadhi day at Necklace road.

Gandhi Jayanthi promoted as Khadhi Day

2. On 7th Feb, 2016 the NSS volunteers of TKRCET participated in CANCER awareness walk was organized by Yashoda hospitals at INDOOR Stadium, L.B Nagar to Dilsuknagar.

3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

Institute is highly concerted with its stakeholder i.e. include students, Parents, staff, alumni and industry.

Students:

➢ We value the opinions and needs of our students

➢ The student representative communicates students requirements and problems to the respective teacher/HOD/Principal

➢ Students have freedom to approach the principal during working hours without prior appointment.

➢ Students and alumni are having good participation in decision making.

Parents:

➢ They are informed about their wards academic performance and attendance record through letters and phone calls.

➢ Direct interaction of the guardians with the H.O.D. is also encouraged.

➢ Parents of any students are allowed to meet the teacher/coordinators and principal on any day of the week at any time to make any suggestions or complaints

Alumni:

➢ We have constituted an Alumni Association with a professor incharge.

➢ The association organizes meetings regularly.

Industry:

➢ Evaluate the students through conducting Mock Interviews and industrial visits.

➢ Feedback/Comments from industrialist who visit our campus for Guest Lecture/ Seminar/ Conference / Workshops/ Placements.

Staff:

➢ We have regular staff meetings to keep the staff updated about changes and developments of the institute

➢ Most of the decisions are taken only after consulting the staff during staff meeting.

3.6.4 **How does the institution plan and organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.**

Every academic year, the extension and outreach programmes are planned and will be executed as per the academic calendar. The college is incessantly organizing a number of outreach activities which relate to academic, Social, Cultural, and Community service, Adventure etc. and all culminate in building a healthy society contributing to nation development. Budgetary details of last four years is as follows:

2016-17	Rs. 43,400-00	Refreshments for Blood donation camp (05/08/2016) : Rs. 3000-00
		Digital India Programme (05/01/2017) : Rs. 1200-00
		Swachh Meerpet (20/09/2016) : Rs. 1200-00
		Fund raising for Helping a Poor Student (04/03/2017) : Rs. 1200-00
		She Teams awareness programme (27/12/2016) : Rs. 1200-00
		Old Clothes Distribution (16/07/2016) : Rs. 1000-00
		Eye Check Camp (23/12/2016) : Rs. 2000-00
		Stationary, Photos, Banner etc.. : Rs. 2000-00
		NSS programme Officer Remuneration (12 months X Rs.400/-) : Rs.4800-00
		Clerk allowance (12 months X Rs.60/-): Rs. 720-00
		Attender allowance (12 months X Rs.40/-) : Rs. 480-00
		Miscellaneous : Rs. 2100-00
		Medical Awareness camp : Rs. 5000-00
		Swatch Bharat Awareness camp : Rs. 3000-00
		Digital Literacy Drive Programme : Rs. 2000-00
		Hygienic awareness programme : Rs. 5000-00
		Tree plantation : Rs. 2000-00
		Miscellaneous : Rs. 5500-00

2015-16	Rs. 16,000-00	Refreshments for Blood donation camp (15/07/2015) : Rs. 3000-00
		Plantation Programme (14/08/2015) : Rs. 1000-00
		Fund raising for Helping a Poor Student (08/02/2016) : Rs. 1200-00
		Swachh Meerpet (04/09/2015) : Rs. 1000-00
		Khadi Day (02/10/2015) : Rs. 1500-00
		Cricket Tournament for Disabled (02/10/2015 to 10/10/2015) : Rs. 1000-00
		International White Cane Day (14/12/2015) : Rs. 800-00
		Seminar on Role of Youth in Nation Building (05/01/2016) : Rs. 2000-00
		Cancer Awareness Programme (07/02/2016) : Rs. 500-00
		Stationary, Photos, Banner etc.. : Rs. 2500-00
		Miscellaneous : Rs. 1500-00

Year	Funds Allotted	Activities
2014-15	Rs. 44,500-00	Refreshments for Blood donation camp (21/10/2014) : Rs. 3000-00
		Road Safety event (11/03/2015) : Rs. 1200-00
		Fund raising for Hud Hud Cyclone victims (27/11/2014) : Rs. 1200-00
		Programme on Health Insurance by SBI (03/02/2015) : Rs. 1200-00
		International White Cane Day (31/01/2015) : Rs. 1200-00
		Old Clothes Distribution (10/07/2014) : Rs. 1200-00
		Stationary, Photos, Banner etc.. : Rs. 4000-00
		NSS programme Officer Remuneration (12 months X Rs.400/-) : Rs.4800-00
		Clerk allowance (12 months X Rs.60/-) : Rs. 720-00
		Attender allowance (12 months X Rs.40/-) : Rs. 480-00
		Miscellaneous : Rs. 3000-00
		Medical awareness camp : Rs. 4000-00
		Health camp, Helping the old age people : Rs. 5000-00
		Computer Education : Rs. 2000-00
		Hygienic awareness programme : Rs. 5000-00
		Tree plantation : Rs. 1000-00
		Miscellaneous : Rs. 5500-00

Year	Funds Allotted	Activities
2013-14	Rs. 44,500-00	Health & Wellness Programme (16th, Julyt-2013) : Rs. 1000-00
		(Transportation, photos, stationery etc...): Rs. 1000-00
		Guest lecture on PDP (14th Sept - 2013)(Stationary etc..) : Rs. 1000-00
		Fund raising for Orphanage (18th Feb-2014) : Rs. 1000-00
		Birth Day Celebrations of Swamy Vivekananda (2nd to 12th Jan - 2014) : Rs. 5000-00
		Fund raising for attender (15th Mar-2014) : Rs. 1000-00
		Programme on Road safety (23rd Jan- 2014) : Rs. 1000-00
		Martyr's Day celebrations (30th Jan– 2014) : Rs. 1000-00
		Old Clothes Distribution (12nd Feb-2014) : Rs. 2000-00
		NSS programme Officer Remuneration : Rs.4800-00 p.a
		Clerk allowance (12 months X Rs.60/-) : Rs. 720-00
		Attender allowance (12 months X Rs.40/-) : Rs. 480-00
		Miscellaneous : Rs. 3000-00
		Medical awareness camp : Rs. 4000-00
		Health camp, Helping the old age people : Rs. 5000-00
		Computer Education : Rs. 2000-00
		Hygienic awareness programme : Rs. 5000-00
		Tree plantation : Rs. 1000-00
		Miscellaneous : Rs. 5500-00

3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?

The institution promotes the participation of students and faculty in extension activities by way of presenting the participation certificates and mementos to the students and faculty. The college is also providing necessary financial assistance to conduct programs such as NSS etc.

3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?

The institute has made a conscious effort to promote social justice as a value in learning process and administrative interactions. The institution sincerely practices state social affirmative schemes introduced by the government for the up liftment of higher education to under privileged communities. The college NSS unit makes survey of the educational, social, economic and psychological matters of the villages around the college.

1. A Fund of Rs.36,200/- was raised for helping the victims of hud-hud cyclone victims of Visakhapatnam by the NSS Activists of TKRCET by carrying the hundis to each class room and was handed over to Eenadu on 27th Nov, 2014.

2015-16

1. A fund raising camp was organized by the NSS unit of TKRCET to help a diploma student Mr. D.Omkar who was suffering from blood cancer. An amount of Rs. 69,000/- was collected from staff and students and was handed over to him on 8th Feb 2016.

ఆపదలో ఉన్నవారిని ఆదుకోవాలి: తీగల

బడంగ్‌పేట్, నమస్తే తెలంగాణ: ఆప దలో ఉన్న వారికి చేయుతనివ్వా ల్సిన అవసరం ఉందని మహేశ్వరం నియోజకవర్గ ఎమ్మెల్యే తీగల కృష్ణా రెడ్డి అన్నారు. మంగళవా రం సరూ ర్‌నగర్ మండలం మీర్‌పేట్ గ్రామం లోని టీకేఆర్ కళాశాలలో చదువు తున్న ఓంకార్ అనే విద్యార్థికి బ్లడ్‌క్యా న్సర్ రావడంతో కళాశాల యాజ మాన్యం తీగల హరినాథ్‌రెడ్డి, తీగల ఆమర్‌నాథ్‌రెడ్డి ఎమ్మెల్యే తీగల కృష్ణా రెడ్డి చేతుల మీదుగా రూ.69,000 నగదును విద్యార్థి ఓంకార్ కుటుంబానికి అందజేశారు. ఈ సంద ర్భంగా ఎమ్మెల్యే మాట్లాడుతూ ప్రతిఒక్క రికీ సేవాభావం ఉంటే సమాజంలో మార్పు

ఆర్థిక సాయం అందజేస్తున్న ఎమ్మెల్యే తీగల కృష్ణారెడ్డి

సాధ్యమవుతుందన్నారు. బ్లడ్‌క్యాన్సర్‌తో బాధప డుతున్న ఓంకార్ కుటుంబానికి టీకేఆర్ విద్యాసం స్థలు ఆర్థిక సాయంచేయడం అభినందనీయమ న్నారు. తెలంగాణ ప్రభుత్వం వైద్యం నిమిత్తం ఎంతోమందికి చేయూతనిస్తోందన్నారు.

2. An amount of Rs.10, 000/- was sent to Indian Association for the blind on account of International white cane day on 14th Dec, 2015.

3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.

Extension activities conducted by the institute always imbibe academic learning experience, values and skills not only in students but also in faculty. These activities refresh the environment of the institute as well. The major strength of this college is its ability to ensure holistic development of students and make them enlightened citizens. The college maintains equality to all sections of society in terms of providing knowledge and quality education. It aims to maintain modern outlook with contemporary developments. To provide knowledge and quality based education to the students the institute inculcates moral values, scientific temper and employs state-of-the-art technologies. It aims to pursue excellence towards creating manpower with high degree of intellectual, professional and cultural development to meet the national and global challenges.

Outcome:

Participation in various socially relevant activities has resulted in inculcating the feeling of being socially awakened citizens in the students. The students who have been a part of this process have been spreading awareness in the institution. They motivate other students to stand tall for the cause of social upliftment and develop their organizing capacities, programme co-ordination skills, social skills, communication skill and social responsibility. With these extension activities, the students learn the values of social justice, equality and right of speech for anti-social acts. Apart from academic knowledge they get to learn the values of life, moral duties towards mankind and significance of various days observed worldwide.

3.6.8 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.

The institution has constructive relationships with other institutions of the locality. The blood donation camps & eye camps are organized with

the help of reputed hospitals like Govt. Hospitals, Prathama Laboratory, Red-cross. The NSS coordinates all its activities under the norms of the University. The unit organizes tree plantation, village cleanliness, awareness activities like, environment pollution, and effects of pesticides on human life with the help of NGOs.

3.6.9 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.

> The Red Cross and Government general hospital have given an appreciation letter for our contribution in Blood Donation.
>
> An amount of Rs.10,000/- was sent to Indian Association for the blind on account of International white cane day on 14th Dec, 2015.

3.7 Collaboration

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives - collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

As the Institute holds the Innovation center for composites the Equipment developed across the center are used for testing various forms of composite materials and the outcome of the testing machinery is as follows:

The list of machinery developed for the innovation center:

Sl.NO	Description of the equipment developed	Specifications	Remarks
1	Resin transfer moulding	Specimen size is 400mmx400mm	Specimens are made as per the ASMT Standards.
2	Vaccum assisted resin transfer moulding	Specimen size is 400mmx400mm	Specimens are made as per the ASMT Standards.
3	Flexural fatigue analysis machine	30mmx5mmx200mm	Customized data logging system
4	Bi-axial tensile and compression test machine	Each hydraulic cylinder with a capacity of 30T loading	With Customized data logging system
5	Water treatment system	Capable to handle 40lpm to100lpm of water	Can be coupled to a cooling tower

The innovation center serve the needs of following students to carry out their research work.

Sl.No	Name of the candidate	Title of the research work	Status of the work
1	K. Vasantha kumar	Flexural fatigue analysis of laminated composite materials	Completed
2	M.A. Matheen	Failure Analysis of composite materials under Biaxia state of stresses	85%work completed
3	Syed Mudasir	Analysis of Damage tolerance of sandwich composite materials	Prephd completed
4	K .Naveena Latha	Processes parameter optimization of Chemical free water treatment system for water used for industries.	85% COMPLEETED
5	M.MIhaj uddin saif	Analysis of laminated composites subjected to quasi static indentation.	85% COMPLEETED
6	Vijaya sree	Analysis of filament wound frp Columns and struts.	75%work completed
7	Basheer	FRP manufacturing processes analysis to enhance productivity.	Course work in progress
8	S. Prashanth	Machining processes parameter optimization of composites by milling.	80%Work completed
9	N Surya	Friction stir extrusion processes parameter optimization of Al machined chips.	Course work in progress
10	Mutyam savita	Fluxural fatigue analysis of FRP laminates produced pul-trusion manufacturing process.	Course work in progress
11	Thirunagari Madhavi	An Investigation on processes parameter's influence of mechanical properties of friction stir weldments of Aluminium particulate composites.	Course work in progress.

List of Paper Publications in Conferences and Journals

1.Published a technical paper in *International Conference* on *"Recent Advances In Material Science & Technology-2013"*Organized by Department of Chemistry, National Institute of Technology Karnataka, Surathkal, Mangalore*.*

2.Published a technical paper in *International Conference on "Advancements in Polymeric Materials - APM 2015"* organized by

Central Institute of Plastics Engineering and Technology (CIPET), Chennai India.

3. *A Finite Element Investigation of Filament Wound Pressure Vessel Subjected to Internal Pressure"* published in International Journal of Computer Applications in Engineering, Technology and Sciences (IJ-CA-ETS), Vol 3, Issue1, OCT.'10- March'11, ISSN: 0974-3596.

4. *Thermal characterization of glass/epoxy – Polyurethane composite sandwich panels at low Temperature applications"* published in International Journal of Emerging Technologies and Applications in Engineering, Technology and Sciences (IJ-EA-ETS), Volume 4: Issue 2 JULY '11 – DEC '11, ISSN: 0974-3588.

5. **Effect of Geometrical Discontinuities on Strain Distribution for Orthotropic Laminates under Biaxial Loading",** published in Journal of Engineering Materials and Technology, Volume 138, Issue 1, January 2016, AMSE Doi:10.1115/1.4032004.

3.7.2 **Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/other universities/ industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.**

Yes, the institution has signed MOUs with the following companies:

- ➢ SVS Hydraulics
- ➢ Andromeda Energy Systems
- ➢ Mavin Value Creations

Memorandum of Understanding (MoU) with different Companies is as follows:

1. We have an MoU with SVS Hydraulics, An ISO 9001-2008 Company, Balanagar, Hyderabad-500037. They already contributed Rs. 6.5 lakhs worth of machinery Hydraulic powered, materials test biaxial tensile testing machine. In a reciprocating gesture we offered our expertise in fiber reinforced plastics technology and supporting to pursue research on the area of stress analysis accelerated AG-ING analysis of pull-truded products and SMC products. Pull-truded rebars and their characterizations as related areas. Analyzing this as one of thrust area,

Research activities is abundant, a couple of Ph.D thesis work can be produced. We are using the said material for enhancement of quality in improving the respective products.

2. We have an MoU with Andromeda Energy Technologies Pvt. Ltd. It is an ISO 9001-2008 Certified Company. A Project by title "Automated Solar Power Wheel-Chair" is developed, this project is undertaken under the close guidance of EEE Department. The address of the company Factory D-72 Phase I-IDA Jeedimetla Hyderabad- 500055.

3. Battery bikes Industry Pvt. Ltd. 24-92/3, LN Nagar, IDA Uppal, Hyderabad -500039, developed an MoU with our Institute.

4. Mavin value Creations- Software Solutions Pvt. Ltd, Saroornagar, RR Dist, Hyderabad, also developed an MoU with Department of CSE, TKRCET. An Automation of Educational Practices is the major project in collaboration with CSE and IT Departments of this Institute. This initiative is quite useful for our B.Tech, M.Tech Students as well as Research Scholars.

3.7.3 **Give details (if any) on the industry-institution-community interactions that have contributed to the establishment / creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories / library/ new technology /placement services etc.**

As the Institute is affiliated to JNTUH, the industry-institution interactions have taken place by signing an MOU with Telangana Academy for Skill and Knowledge (TASK), specifically for expertise in profiles of Data Analysts & Security Analysts for computer science and engineering undergraduate course.

3.7.4 **How many of the linkages/collaborations have actually resulted in formal MoUs and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated:**

a)	Curriculum development/enrichment	:	As the college is affiliated to the JNTUH, it follows the curriculum and syllabus of the university.
b)	Internship/ On-the-job training	:	Yes, the college has Facilities of Internship / On-the-job training; also we organize industrial visit/field work/ educational tour regularly
c)	Summer placement	:	Yes
d)	Faculty exchange and professional	:	Yes
e)	Research	:	Yes
f)	Consultancy	:	Yes
g)	Extension Publication	:	Yes
h)	Student Placement	:	Yes
i)	Twinning Programmes	:	No
j)	Introduction of new courses	:	No
k)	Student Exchange	:	No

CRITERIA IV

INFRASTRUCTURE & LEARNNG RESOURCES

4.1 Physical Facilities

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

Good and modern infrastructure will definitely facilitate better teaching learning process. As per the policy matter, the institution has developed good infrastructure like, Canteen, Transport Facility, Auditorium, IT lab, Internet with Wi-Fi, Library with reading room, Digital Library, Well Equipped Laboratories, Playgrounds, Boys & Girls on the campus hostel. The institution has also planned to provide separate modern infrastructure for research activities.

4.1.2 Detail the facilities available for

a) **Curricular and co-curricular activities - classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.**

To ensure excellent infrastructure facilities to its students the institute has made available the following facilities:

Particulars	Number of Rooms	lxbxh of Rooms in mts	Clear Carpet Area of Each Room(m^2)
Class Rooms	62	(10.3*9.43)	4979
Tutorial Rooms	20	6*7	789
Drawing Hall	4	9.10*15.74	510
Computer Centre	1	20.55*9.15	150
Library	1	182* 8.2	1510
All Laboratories	49	10.3*9.4	4864
Workshops	5	19.0*16.57	1114
Seminar Hall	13	13.85*9.26	1800

b) Extra -curricular activities - sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc.

The College campus is spread over a vast area of 10 acres with a built in area of 30,513 sqmts. Comprising of class rooms, laboratories, computing centers, auditorium, hostels, library and sports facilities. A centralized administrative block and a separate building for computational facilities are maintained.

The college has six seminar halls where the guest Lectures/ Symposia and seminars are held. Each and every department has a separate seminar hall equipped with LCD, audio & video facilities. In terms of sports facilities, the College has provided one physical fitness center (gymnasium) extended over an area of 1800 sqft with all kinds of equipment like dumbbells and heavy weight lifting. Two volley ball courts xtended over 3600 sqft are provided separately for boys and girls and are well maintained with permanent nets. A concreted & well-equipped Basket Ball court with an area of 4700 sqft is available on the campus. The Institute also comprises a Cricket ground with flood lights with an area of 2.27 acres. In addition, indoor games facilities are provided in every hostel.

BLOCK I

BLOCK II

BLOCK III

COLLEGE BUSES

FOOD COURT

GYMNASIUM

AMBULANCE

4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution/ campus and indicate the existing physical infrastructure and the future planned expansions if any).

The college started in the academic year 2002-2003 with an intake of 240 and has grown steadily to a present intake of 1020. The infrastructure has been built in accordance with the increase in intake and the present infrastructure has all the requirements for the present intake and is optimally utilized for academics and administration of the College.

The amount spent to develop the facilities during the last four years:				
Item	Expenditure in (2015-16)	Expenditure in (2014-15)	Expenditure in (2013-14)	Expenditure in (2012-13)
Acquisition of Land & new buildings and infrastructural built up	0	73,64,267	70,54,041	1,63,81,983
Infrastructure	0	0	0	0
Library	18,84,320	10,42,198	18,28,117	13,51,799
Laboratory Equipment	7,26,580	1,79,000	2,25,714	31,40,066
Laboratory	2,46,536	15,32,520	15,628	2,02,140
Teaching & Non-Teaching Staff Salary	17,29,27,073	16,57,62,708	13,87,12,543	12,36,24,771
Travel	1,10,830	1,11,968	4,54,560	4,25,686
Others (Printing & Stationery, Insurance Charges, Advertisement	2,89,35,401	6,65,82,681	5,09,81,534	5,16,26,748

4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

The building structure is also designed keeping in view of disabled students by providing elevators for movement of students from one floor to another floor. Also, Classes are conducted for disabled students in ground floor much of the times. In addition, most of the lab facilities are provided in the ground floor with a few in the first floor to provide easy access.

4.1.5 Give details on the residential facility and various provisions available within them:

➢ Hostel Facility - Accommodation available.
➢ Recreational facilities, gymnasium, yoga center, etc.
➢ Computer facility including access to internet in hostel.
➢ Facilities for medical emergencies.
➢ Library facility in the hostels.
➢ Internet and Wi-Fi facility.
➢ Recreational facility-common room with audio-visual equipment.
➢ Available residential facility for the staff and occupancy Constant supply of safe drinking water.
➢ Security.

At **TKRCET** students enjoys the proximity and connectivity as it is centrally located in Hyderabad city. It patronizes two separate hostels-for boys and girls where majority of outside students of Hyderbad reside. The hostels have spacious rooms with attached bathrooms, table, chair, bed and fan. Common rooms with indoor games, reading room with TV Newspapers and Magazines are available. The locality has a number of Physicians and emergency medical care centers to cater for health related aspects. However, construction of hostels for the students and quarters for faculty & staff is included in the perspective plan. The institution also maintains a Guest House for outside faculty and visitors.

Hostel Facilities:

S.No	Particulars	Boys	Girls
1	Land Location	TKRES	TKRES
2	Total Area of Land (in acres)	0.2	
3	No. of Buildings	2	2
4	No. of Floors	G+2	G+3
5	Total Floor Area in sq.m	2000	3000
6	Internet Facility	Available	Available

S.no	Name of the Hostel	No. of Rooms	LXBXH of room in m	No. of inmates per room	No. of inmates per mess	No. of inmates per toilet/ bath	No. of inmates per computer
1	Boys	25	1.4 X 1.3 X 1.2	4	50	10	20
2	Girls	60	1.4 X 1.3 X 1.2	5	50	15	60

4.1.6. What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

The institute is keenly observant on the health aspects of its students, therefore it has established a Health-care Centre on the campus. A mini ambulance is also available, a qualified doctor and nurse are available, who visit the college once in every two days, and the doctor is available on call on all the working days of the college, as and when required.

4.1.7. Give details of the Common Facilities available on the campus –spaces for special units like IQAC, Grievance Redressal unit, Women's Cell, Counseling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

S.No	Cell	Details
1.	IQAC	IQAC cell is well equipped with infrastructure in an area 50 sq.m.
2.	Grievance Redressal Unit	A common facility in an area of 50sqm is provided for Grievance Redressal Unit and Women's cell with required infrastructure
3.	Women's cell	A common facility in an area of 50sqm is provided for Grievance Redressal Unit and Women's cell with required infrastructure
4.	Counseling and Career Guidance	A 50 sq.m. area is provided for Counselling and Career Guidance cell with necessary infrastructure
5.	Placement Unit	Our College has a full flagged T& P cell to look after the training and placement of the students.
6.	Health center	An area of 100 sqm with two beds and required equipment is provided for Health Center
7.	Canteen	We have a large canteen in an open area within a campus. It is used by both Staff members and students.
8.	Recreational space for students and staff	We have common room for both boys and girls. There is a ground cum lawn in front of Auditorium for staff recreation, used for Volleyball and Badminton.
9.	Safe drinking water facility	Water purifier RO plant with coolers located at strategic points.
10.	Auditorium	The college has centrally air conditioned well equipped and acoustically treated auditorium having capacity of over 1000 students with green room facility.

4.2. Library as a Learning Resource

Introduction:

The TKRCET Library & Information Centre, Central Library has been established since the inception of the college in the year 2002. The Library has a vast collection of 81,635 Volumes and 7,507 titles, in addition 152 National Journals, 219 full text IEEE-online Journals, J-Gate Management Science online Journals, 120 Bentham online Journals and 40 General Technical Magazines and 11 Newspapers are available. Fully automated with barcode technology and New Gen Lib Library software is being used for bibliography data of books and periodicals for generation of barcodes. The library provides Net based service to the students and faculty. The library also has OPAC (Online Public Access Catalogue) systems, kept in the entrance of stock area, exclusively for the users to search the catalogue. CCTV implementation to monitor the activities in the Library.

Main Entrance

4.2.1 Does the Library have an Advisory Committee specify the composition of such a committee what significant initiatives have been implemented by the committee to render the Library student/user friendly?

The Library & Information Centre has advisory committee composed of faculty from various Departments, the Principal as a Chairman, Chief Librarian as a Convener and one staff member representing each

department has been constituted to help in the development activities of the library. Students Library Committee comprising of a student coordinator with students members representing their problems through the committee and also they are participating in the developmental activities of the Library. The Committee is expected to monitor the allocation of funds for the Books, Journals, Manuals etc. and the Digital information self-Learning resource, information online Journals. The Library Committee is also expected to monitor the students and staff utilization of the library.

The committee shall take into consideration all the procurement criteria, rules and regulations of the Library Administration and Management including cataloguing, classification and Administration. The Committee shall look into the Acquisition procedure and indents of the department fall under the preview of the committee in a non-statutory manner. The committee is expected to submit the minutes of its meetings along with observations, suggestions if any and resolutions to the respective statutory committees for further processing.

The following table gives the constitution of Library Advisory Committee. The Library Committee meets once in every Quarterly.

Members of Library Advisory Committee

S.No.	Name of the Staff Members	Designation	Department
1	Dr.D.V.Ravi Shankar	Principal and Chairman	MECH
2	Dr.G.Madhusudhan Rao	Professor and HOD	EEE
3	Dr.D.Nageshwara Rao	Professor and HOD	ECE
4	Dr.V.Prabhakar Rao	Professor and HOD	MECH
5	Dr.A.Suresh Rao	Professor and HOD	CSE
6	Dr.K.M.V. Madan Kumar	Professor and HOD	IT
7	Dr. B.Rajini kanth	Professor and HOD	S&H
8	Prof. G.Ailaiah	Professor and HOD	MBA
9	G.Srinivas Reddy	Chief Librarian - Convener	LIBRARY
	Student Members		
10	P.Puspa Naga Deepika	IV Yr, B.Tech	EEE
11	A.Bharath Reddy	III Yr, B.Tech	ECE

Functions of the Committee:

➤ The Committee will recommend acquisition of Books, Periodicals, Reports, Conference Proceedings etc., for the Library as Necessary in respect of all Departments.

➤ Updating the Library in terms of Departmental Needs.

➤ Periodically meetings to Assess, Review, suggest and Recommend the purchase of Books, Journals, Periodicals and other items like Furniture's Stationary software and Hardware etc. For updating the Library & Information Centre.

➤ General Books and Competitive Books where purchased.

➤ The Committee may meet at least once in a quarterly and more frequently, if necessary, for the purpose.

➤ Subscribe to E-Books and E-Journals to access for students and staff members.

The following items fall under the purview of the Committee.

➤ Ascertaining the number of Books and Journals available in the Library.

➤ Ascertaining whether the catalogue is up to date or not.

➤ Budget planning for the year.

➤ Budget utilization of the previous year.

➤ Distribution of funds allocated for Books, Journals, Periodicals, others etc.

➤ Purchase mechanism for the Central Library.

➤ Infrastructure like Tables, Chairs, Racks, Almaras etc. and their maintenance fund allocation for the above items and its utilization.

➤ Functioning of the Digital Library.

➤ Establishment new sections of the Central Library.

4.2.2. Provide Details the following.

Total Area of the Library (in Sq.mts)   :1510 Sq.m (II & III Floors - 4 wings With Duplex Model)

➤ Total Seating Capacity	:	400 persons
➤ General Reading Hall-I	:	278.46 Sq.m
➤ General Reading Hall-II	:	104.89 Sq.m
➤ Reference Section	:	209.75 Sq.m
➤ Periodical Section	:	207.08 Sq.m

➢ Stock Area	:	306.05 Sq.m
➢ Text Book Section	:	205.22 Sq.m
➢ Digital Library	:	197.85 Sq.m

Working Hours	:	8:00 AM to 6:00 PM
Week days	:	8:00 AM to 6:00 PM
Sundays	:	9:00 AM to 1:00 PM
Vacation	:	9:00 AM to 5:00 PM
During Exam Period	:	8:00 AM to 8:00 PM

First Floor:

Wing-A: Circulation desk, Reading Hall-I, Digital Library, Self-Learning Resources
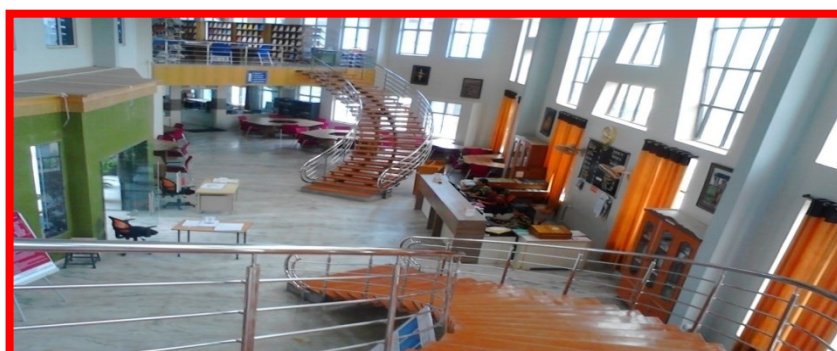
Main Entrance with Left side View

Inner View of Virtual Library

Wing-B: Stock Area, Reprography Service, Library office, collection Development & Technical Service.

UG Stock Area

Second Floor:

Wing-C: Print periodicals, Bound volumes, Newspapers, Competitive Books Wing and Audio visuals.

Periodical Section

Wing-D: Reference Collection, Reading Hall-II, Research cubicles, Text book Section, Welfare Books.
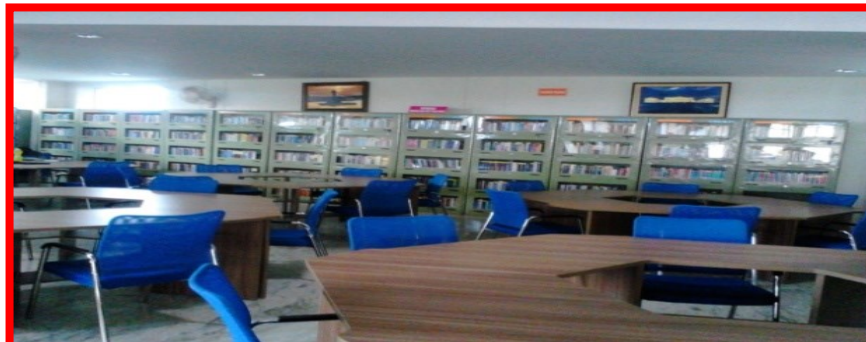
Reference Section and Reading Hall – II

Text Book Section

Clear and Prominent display of floor plan adequate. Sign boards, fire Extinguisher access to differently abled user and mode of access to collection is clearly provided.

Layout of Library:
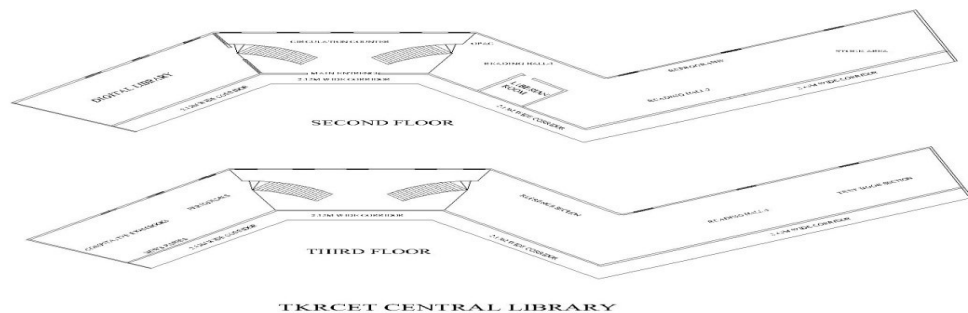
Lay out of the Library (Individual, Reading carrels lounge area for borrowing and relaxed reading IT zone for accessing e-resources) – **Plan attached**

The Library & Information Centre is spread across two floors in four wings

4.2.3 **How does the Library ensure purchase and use of current titles print and e-Journals and other reading materials? Specify the amount spent on procuring new books, Journals and E-Resources during the last four years.**

a).Print	
Volumes(Books)	**81,635**
Titles	**7,507**
Reference Books	**28,981**
Titles	**7,507**
Book Bank Books	**40,337**
Titles	**615**
b).Non Print (Audio Visual)	**6,130**
c).Electronic Format	
e-books	**1,874**
e-Journals	**5,916**
d).Special Collection	**240**
e). Thesis & Dissertations	**2,479**
e).Electronics(e-Books & e-Journals)	**IEEE, J-GATE,DELNET, Bentham, NPTEL**

Special Collection:

Course Collection consists of Text Books, Journals articles, Conference Proceedings, faculty ppt files, Lecture notes and other reading materials recommended by the respective faculty members for different courses for each semester. Major material change from semester to semester based on the course requirements. These materials are kept at the circulation section and are meant for reference only within the Library.

Short loan Collection:

Copies of text and Reference books recommended by the respective faculty for different courses which are likely to be in heavy demand during the semester are identified and designated as short loan books.

Reference Books:

Books such as Encyclopedias, Dictionaries, Directories, Hand Books, Geographical sources, Manuals and other related reading and self-

learning material are located in the stock areas on the Reference section.

Question Banks:

The copies of previous Years University Question papers soft and hard copies are maintained at the Digital Library and Stock area.

Book Bank:

This is a Semester / Year wise based scheme (All B.Tech students). Students will get one set of Text Books at the beginning of year/semester. These Books will be over and above the Library Books. The Books must be returned after the end of the external exams

Give Details on the Library Holdings:

Library Holdings	Year 2012-2013		Year 2013-2014		Year 2014-2015		Year 2015-2016	
	Number	Total Cost Rs/-	Number	Total Cost Rs/-	Number	Total Cost Rs/-	Number	Total Cost Rs/-
Text Books	3,066	8,35,500	3,788	12,26,211	4,137	16,42,634	1,236	6,28,086
Reference Books	1,103	4,06,533	1,031	2,29,920	580	1,71,720	541	81,746
National Journal	193	2,24,595	218	2,20,315	218	2,81,507	209	3,20,946
Inter National Journal	230	4,88,670	230	6,21,720	230	6,52,410	230	7,35,942
E-Resources	**DELNET, J-GATE, NPTEL, SONET and Other Self Learning Resources**							

➢ 4.2.4. What tools does the Library deploy to provide access to the collection?

➢ Web OPAC   -

➢ Electronic resource Management Package for e-Journals?

➢ Federated searching tools to search articles in multiple databases?

➢ Library Website

➢ ICT Information Communication Technology

➢ In house remote access to e- Publications

The Library & Information Centre Provides a Web Based access catalogue of Books, Journals and other reading materials available in its collection. A user friendly web interface provides various options including Author, Title and other keywords etc to search the library holdings, members can also check the status of each document and over dues etc.

The following e- Journals are subscribed.

IEEE (ASPP+POP)	–	http://ieeeexplore.org
J-Gate Management	–	http://jgateinformation.co.in
DELNET	-	http://delnet.nic.in
Bentham	-	http://www.ingentaconnect.com/

Search can be done by using title of books, author of books, subject, keywords or publisher, edition and journal.

The benefits to the users are listed below.

➢ online public access catalogue

➢ Reprographic service

➢ Books Reservation

➢ Digital Library

➢ Reference Service

➢ Competitive Exams Wing

➢ Self-Learning Resources

➢ Inter Library Loan

➢ Current Awareness Service

➢ Selective Dissemination Information

➢ Question papers

Dedicate Library & Information Centre website provides easy access to its collection and to the Library website Library users use the website to access the online databases, e-Journals, e-Books and other Electronic resources.

4.2.5. To what extent is the ICT deployed in the Library?

➢ Library Automation

➢ The Library is fully computerized using NEWZEN-LIB Library software and covering most of the functions of the Library.

➢ Total number of Computers for public access : 50 multimedia Systems

➢ 50 computers can be accessed by the users from 9:00A.M to 6:00 P.M

➢ Total Number of printers for Public Access : 03

➢ Internet Band width : 12 Mbps

➢ Institutional Repository :

The Library & Information Centre maintains Institutional repository of scholarly output of the TKRCET can be loaded like the B.Tech project reports M.Tech, MCA and MBA Dissertations and annual reports etc.

➢ Context Management System for e-Learning :

The Library & Information Centre has a content Management system in place to facilitate e-learning CD/DVD's, NPTEL lessons, SONET Lectures, MIT Lectures, e-Books and other self-learning resources can be loaded on the dedicated server in the Digital library accessed through internet.

➢ Participation in Resource sharing Networks / Consortia :

Indian National Digital Library in Engineering Science and Technology

Consortium – **INDEST**

Developing library Network – **DELNET**

Society for networking for excellence in technical education - **SONET**

Social and Management Sciences – J-Gate

National Program on Technical Enhanced Learning - **NPTEL**

4.2.6. Provide Details

➢ Average number of walk-ins per day   -   520
➢ Average number of Books issued / Returned per day   -   600
➢ Ratio of Library Books to students enrolled   -   23
➢ Average number of Books added during last three years   -   11,500
➢ Average number of login to OPAC per day   -   35
➢ Average number of login to e-resource per day   -   150
➢ Average number of e-resources downloaded / printed per day -   1,450
➢ Number of Information literacy training organize per day -   01

Give details of the specialized services provide by the Library with regard to:

➢ Manuscripts
➢ References
➢ Reprography / Scanning
➢ ILL(Inter Library Loan service)

- Information Deployment and Notification
- OPAC Service
- Internet Access
- Downloads
- Printouts
- Reading list / Bibliography compilation
- In-House/Remote access to e-resources
- User orientation
- INDEST-AICTE IEEE, J-GATE, DELNET facilities

4.2.7   Provide Details on the annual Library Budget and the amount spent for   purchasing new Books and Journals

Rs. 30 Lakhs for annum (Rs.20 Lakhs for Books and 10 Lakhs for Journals) on the Recommendation by Library Advisory Committee the college spent 7 lakhs for subscription of   e-Journals in the year 2015-2016

4.2.8. Does the Library get the feedback from its users? If yes, how it is analyzed and used for improving the Library Services.

A Suggestion Complaints Box is Provided at the Library in which the Students and Faculty May drop Complaints or suggestions Any such Complaints/ Suggestions received is addressed by Librarian immediately Improved to the Principal in necessary the library Advisory Committee is informed about it and suitable action is recommended by the Committee. The feedback is taken by the questionnaire method. It is analyzed by the Library Committee. Few recommendations made by the library committee are

- The library timing have been enhanced.
- To increase the number of titles / volumes for stock area.

4.2.9. List the infrastructures development of the library over the last four years.

- Added open racks   :   10
- Added Almaras   :   02
- Added furniture (Tables + Chairs)   :   12
- Have been added computers   :   06
- Added periodicals racks   :   01

- ➢ Added competitive exams wing Book cases : 08
- ➢ Notice boards : 01
- ➢ Sign boards : 02
- ➢ Bay guides : 45

4.2.10. Did the Library organize workshops for students, teachers and Non- teaching staff of the College to facilitate better library usage. Library Organize Workshop.

1. Awareness Program:

Library & Information Centre conducted orientation / user awareness programme for every year new students. Additionally in house presentations are given by faculty regarding the facilities in Library and additions made.

2. Book Exhibition

A Two day Book Exhibition was conducted by Cengage Learning India Pvt Ltd., under super vision of the Library Department Mr. G. Srinivas Reddy, Chief Librarian has extended his utmost effort to organize this exhibition. Library staff members attended seminars, workshops, conferences organized by other institutions some of them are given below.

3. Released CAS information News Bulletin.

Released Current Awareness Service Information news Bulletin – 2014
by TKRES Director Sri Dr. S.R. Ramaswamy

4. Conducted one day Workshop User awareness of J-Gate Online Journals.

J- GATE Online Journals User Awareness Programme conducted on 29th OCT 2013 by Mr. B. S. RAVI SHANKAR, Training Manager is Informatics India Limited, Bangalore. This Programme organized by TKR Educational Society, Hyderabad.

5. Workshops / seminars attended by library staff:

1. G.SRINIVAS REDDY, Librarian has attended a One-day National workshop on "IEEE Xplore Digital Library User awareness workshop" organized by University Library JNTU, Hyderabad on Aug 2nd, 2013 at Kukatpally, Hyderabad.

2. G.SRINIVAS REDDY, Librarian has attended and Conducted a One-day workshop on "User Awareness Programme" related to J-Gate e-journals organized by TKR Group of Institutions, Hyderabad on Oct 29th , 2013 at TKR College of Engineering & Technology, Meerpet, Hyderabad.

3. G.SRINIVAS REDDY, Librarian has attended "FDP Programme in Entrepreneurship Development" conducted by NSTEDB – Ministry of Science and Technology, Govt. of India, an association with Centre for Entrepreneurship Development (ALEAP), Hyderabad on 20th Aug 2013 to 31 Aug 2013 at TKR College of Engineering & Technology, Meerpet, Hyderabad.

4. G.SRINIVAS REDDY, Librarian has attended National Workshop on "CALIBER E-Book Library manager" on 19th Jan 2014Conducted by Aravindaksha Group of Institutions at Suryapet, Nalgonda Dist.

5. G.SRINIVAS REDDY, Librarian has attended and participated in "Digital Library through J-Gate Journals one Day Workshop on Librarians Day" jointly organized by JNTU-H and Informatics Publishing Limited on 11th August, 2014 at JNTU, Kukatpally, Hyderabad.

6. G.SRINIVAS REDDY, Librarian has attended and presented a paper "Social Media Networking : A New age Learning Tool for Librarians" in International Conference on "Sustainability of Digital Libraries" on 25th to 27th September, 2014 conducted by University Library, JNTU, Kukatpally, Hyderabad.

7. G.SRINIVAS REDDY, Librarian has attended a Conference on "Elsevier Library Connect Seminar" held on 15th October, 2014 at Taj banjara, Hyderabad.

8. G.SRINIVAS REDDY, Librarian has participated in the conference 2015:3rd National Level Social Conference" on Success Stories, Learning's, Creativity, Case Studies, Best Practices and Failures in LIS and related areas organized by TCS in collaborating with Academy of Library Science and Documentation(ALSD) on 21st November, 2015 at Tata Consultancy Services Limited, Hyderabad.

9. G.SRINIVAS REDDY, Librarian has attended the "Taylor & Francis Interactive Digital Library" Event organized by Taylor & Francis Group on 23rd November, 2015 at Hotel Park Hayt IT Park, Gachibowli, Hyderabad.

10. G.SRINIVAS REDDY, Librarian has attended: The E-Content Seminar 2016 on theme of "Library Service and Management a Platform Approach" organized by Informatics Publishing India Private Limited, Bangalore on Monday 21st November-2016 at Radisson Plaza, High-Tech City, Hyderabad.

4.3 IT Infrastructure

4.3.1. **Give details on the computing facility available (hardware and software) at the Institution.**

> Number of computers with Configuration (provide actual number with exact configuration of each available system)
> Computer-student ratio
> Standalone facility
> LAN facility
> Wifi facility
> Licensed software
> Number of nodes/ computers with Internet facility
> Any
> Others

Infrastructure Facilities:		
PARTICULARS	**AVAILABLE**	**SPECIFICATION**
No. of computers	1293	Pentium 4 to latest Core-i5 configuration
No. of terminals of LAN/WAN	1293	1293
Computer student ratio	1:06	
Stand-alone facility	567	Pentium 4 configuration
Licensed software	30	O.S and Applications
Internet facility	100 Mbps	Apollo Internet Service Provider
Wi-Fi connectivity	Yes	Routers at appropriate locations and whole campus is connected through Wi-Fi

4.3.2 **Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?**

The entire campus is optically networked between buildings and cable within the buildings for connectivity. In addition, Wi-Fi facility is provided in all the buildings. Dedicated bandwidth of 100 Mbps is taken from a single source. In addition each building /department, other important places like examination center, remote center for online workshops, placement cell, and library are connected with uninterrupted internet facility.

4.3.3 **What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?**

TKRCET maintains thrust on this vital area to ensure continuous and consistent availability in tune with the growing needs as well as changing technologies. The institute places lot of importance on e-learning and a major plan is in hand to upgrade the bandwidth, connectivity as well as the devices.

4.3.4 **Provide details on the provision made in the annual budget for procurement, Upgradation, deployment and maintenance of the computers and their Accessories in the institution? (Year wise for last four years)**

The systems are updated once in four years. The Computers are maintained every year. There is budget allocation of around Rs. 20,00,000/- for Computer maintenance annually.

4.3.5 **How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?**

As a policy, TKRCET insists on the usage of ICT in its teaching methodologies. Right from the inception it has adopted the traditional chalk & talk method, by bringing in the blackboard on to the campus. Subsequently, the generation of e-learning materials right from the beginning. We have e- Resources Committee which continuously encourages and provides access through college website. Most of the presentations and submissions are made through online facilities.

4.3.6 **Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching - learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.**

Students can access and submit their assignments for every course in the college website provided by the course faculty. The faculty utilizes the internet facility on the campus to answer the student's queries

through the blogs on the internet.

4.3.7 **Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?**

We have become a research center. Process has been initiated to get the Band Width of 20 Mbps under the National Mission on Education through ICT (MHRD, Govt. of India), with the support of the affiliating university JNTUH.

4.4 Maintenance of Campus Facilities

4.4.1 **How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?**

		2016-17	2015-16	2014-15	2013-14
A	Land	-	-	-	-
B	Building	-	7364267	7,759,445	16,381,983
C	Furniture		1116421	1536154	1,810,020
D	Equipme	1584820	525500	1,072,629	3,381,478
E	Computer	625570	2799586	1,916,208	7,622,280
F	Vehicles	-	-	-	182,466
	Total	**22,103,90**	**11,805,774**	**11,579,032**	**29,378,227**

4.4.2 **What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?**

We have well established maintenance cell to upkeep the facilities including the safety and security. Each department, through its labs and administration ensures proper house-keeping and maintenance.

4.4.3 **How and with what frequency does the institute take up calibration and other precision measures for the equipment/instruments?**

Each lab has its own schedules of calibration for its measuring equipment and instruments. As per the schedule each department carries out this task.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?

The College has taken steps for the location of the sensitive equipment like electricity generators, water purifiers, chemicals and scientific instruments. The laboratory staff keeps a strict vigil regarding the maintenance and upkeep of the scientific instruments and Chemicals. Their repair or replacement or another required upkeep is fully undertaken in their supervision. Similarly, the college electrician and the supporting staff are responsible for the upkeep of electrical equipment and their maintenance and safety. The institution has a tie up with the company for RO purifiers and pays AMC to the firm.

CRITERIA V

STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

5.1.1 **Does the institution publish its updated prospectus/handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?**

Yes, the institution publishes a Prospectus annually. It includes, all the information pertaining to historical background, affiliation details, mission and vision of the institution. It also covers the details of the UG, PG, and other programmes, infrastructure available, laboratory facilities, learning environment, support services, placement details, fee structure, outline of various co-curricular, extra-curricular activities and admission rules.

The handbook/syllabus book has the academic rules and regulations which the students need to observe during their course of study at the institute. It contains information regarding course structure, subjects, optional electives & syllabus. The institute also publishes souvenir annually containing all the outgoing student bio-data. The institution ensures 100% commitment and accountability of the entire information given in the prospectus and the same information is available in the website www.tkrcet.ac.in

5.1.2 **Specify the type, number and amount of institutional scholarships / freeships given to the students during the last four years and whether the financial aid was available and disbursed on time?**

The institution provides financial aid for needy and bright students for securing first rank in the University Examination. The Rank holders will be getting concession in their Tuition and Bus fees. The students who secure EAMCET Rank below 2000 are given free seat in the College. The eligible students belonging to the SC/ST category get stipend sanctioned by the Government. The students who are eligible for fee reimbursement

offered by Telangana State Government get the refund when released by the Government.

Student free ships and scholarship: (last 4 years data)

Year/Type	2013-2014		2014-15		2015-16		2016-17	
	Number of Students	Amount	Number of Students	Amount	Number of Students	Amount	Number of Students	Amount
Endowments	-	-	-	-	-	-	-	-
Free ships	-	-	-	-	-	-	-	-
Govt. Scholarship	1857	64214000	1971	71635500	2145	80,058,000	2078	76090800 (To be receive)
Scholarship (Central)	19	-	7	-	5	-	6	-
Scholarship (Institution)	-	-	-	-	-	-	-	-
Number of loan facilities	-	-	-	-	-	-	-	-

5.1.3 **What percentage of students receive financial assistance from state Government, Central Government and other national agencies?**

Approximately 60% of our students belonging to SC/ST, OBC category receive financial assistance from State Government every year. The Institute helps the students to fulfill the initial formalities like filling online forms and the hard copy of the form, and the essential documents are attested by the officer in charge.

5.1.4 **What are the specific support services/facilities available for Students from SC/ST, OBC and economically weaker sections?**

Our Institute provides detail information about Government scholarship and the forms are made available for SC/ST and OBC students. Fee concessions/free ships are provided by the college to the students of economically weaker sections. Institutional library, departmental library and teachers also provide text books for reference and to prepare notes. Teachers provide remedial and doubt clearing classes to ensure better learning to the educationally disadvantaged students. These

classes do help a lot to these students who have not been able to perceive the course contents during the regular classes. These classes are held during their FIP (Faculty Interaction Period) hour or during preparation Holidays.

Students with physical disabilities

Preference is given to the physically challenged candidates at the time of admission. Our campus environment is friendlier to the physically disabled candidates. Special encouragement, guidance and care are given in studies and practicals. Government supports them by Scholarships. Help from supporting staff, if required, is given on request.

Overseas students

Overseas students are given support during their initial college days in adjusting to the new environment. This is being done by the tutors of concerned department. Besides, the college gives special help to these students in terms of overcoming language barriers, if any. The institute provides some additional facilities to the overseas students like, Hygienic Canteen Facilities, Counseling Centre, Health Centers Air Conditioned rooms, Gym, sport center, etc., Long leave (vacation) during the Academic End.

Students to participate in various competitions/National and International

The institute provides information to the students about the various competitions at State & National. Based on the nature of competitions, the HODs recommend the names of the students to the Principal for participating in such competitions. Encouragement and financial aid are provided to students for participating in various competitions, workshops, seminars.

Medical assistance to students: health center, health insurance etc.

Primary treatment to injured student is provided through First Aid Box. There is a Primary Health Centre on the campus, where medical treatment is provided free of cost. A financial aid is provided to the student who is injured during sport event and practicals. Blood donation camp is also held in the institution every year.

- The institution provides a 24-hour Ambulance facility
- Institution gets services from Dr T.Anitha Reddy MD, These members visit the college and hostel weekly once and as when required.

Organizing coaching classes for competitive exams

- The institute has incorporated PDP, Soft skills, communication skill, analytical skill training in addition to the regular curriculum.
- Expert lectures are held regularly.
- Seminars/ workshops are organized.
- Reference books and magazines for competitive exams are provided.

Skill development (spoken English, computer literacy, etc.,)

- In the First and second year curriculum English is offered by the University to develop language skills for students. Apart from the curriculum the institute also introduced PDP, Soft skills, communication skill and analytical skill training.
- Workshops/Seminars are conducted for the benefit of students.
- The institute is provided with computer center (24 hours) with Internet facility.

Support for "slow learners"

- Remedial classes for the slow learners are arranged.
- Extra classes for theory and Practical sessions are arranged.
- Peer learning is encouraged from senior students.

Exposures of students to other institution of higher learning/ corporate/business house etc.

- All the departments conduct educational and excursion tours and industrial visits to esteemed institutes of learning, industries, business houses etc.
- Experts from reputed institutes/industries are invited to share their knowledge and views with the students from time to time.
- The department deputes the students to seminars, workshops and cultural fests organized by other institutions.

- Entrepreneurship training is provided through Industry.
- Placement consultancy services are offered by the college for all students.
- Our alumni who are placed in different Industries help our students in providing exposure and training.
- We have a network with reputed Industries for providing industrial training and placement opportunities for our students.

Publication of student magazines
- Various Departments publish Wall Magazines at their respective departments.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

Technology and globalization usher in an era of unprecedented changes. Perhaps, there is no magic as strong as today, as one about the need and pressure for change and innovation. Business and nations have to respond innovatively to these developments to sustain their growth. In tune with the emerging technology of today's world, TKRCET has incorporated an Entrepreneurship Development Cell, funded by AICTE for the budding entrepreneurs with Dr.K.M.V.Madan Kumar, at the helm, as the coordinator.

Activities of EDC:
- Motivate students to undergo Entrepreneurship Development Program (EDP), skill development training and enhance their self-employment opportunities.
- Motivate them to take the fruits of Science & Technology for entrepreneurial ventures.
- Organizing seminars/ guest lecturers / workshops/ industrial visits.
- Transfer the technical know-how and assist the students in setting up entrepreneurial enterprises.
- Conducting programmes on financial assistance and sources of institutional assistance to entrepreneurs.
- Carrying out study to find out the entrepreneurial potential of

region in selected industries.

> Conducting various skill development training programmes leading to self- employment, conduct research work and survey for identifying entrepreneurial opportunities for our students and to organize talent shows, put up business stalls, etc.

Last year the college received a fund of Rs. 8,00,000 (Rupees eight lac only) and it was used for various purposes in developing the entrepreneurial skills of the students. The amount was spent to assist the students undertaking mini and main projects, to help them undertake short term job training in industries and so on. The students with entrepreneurial flair are also encouraged to establish and to organize stalls during the departmental Technical fests.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.

The institution is committed to attract students for participating in various extracurricular activities by ensuring consistent encouragement and motivation. The necessary facilities are provided and adequate funds are allotted. The sports and cultural committees supervise the extracurricular activities. The students who participate in the sports activities or other extracurricular and extra mural activities are provided with extra classes so that the time they have spared for various activities can be compensated. Re-tests are taken for them, so that they can have an assessment of their preparations for the final examinations.

Additional academic support, flexibility in examinations

College does not give any type of flexibility in examination but such students are given additional academic support through extra classes. Relaxation in attendance is sometimes given to students who participate in co-curricular activities out of the town.

Special dietary requirements, sports uniform and materials

College provides TA/DA to players which include expenses for special diet as per their requirement. College team is provided with Sports

Kits which includes uniforms and other requisite materials. Players, NCC students are also considered.

Any other

Students, who have played Inter University / All India sports, get full concession in tuition fees and who, have played state level sports, are entitled for 50% concession in their tuition fees. College management provides cash prize/certificates/mementos etc. to deserving sports persons to motivate them to achieve excellence in their pursuit of sports.

5.1.7 **Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central /State services, Defense, Civil Services, etc.**

The institute provides guidance and gives support to the students in preparing for the competitive exams. Programmes related to various competitive examinations are informed on a regular basis for the benefit of students. Under the Career Guidance of the college the students are encouraged to appear in such competitive examinations through the following activities:

➢ Students are made aware of UPSC, various core companies, LIC, Bank and Railway competitive examinations. They are duly guided to get through such examinations.

➢ Students are made aware of GRE, TOEFL, GMAT, CAT, etc.,

➢ The college library has been the subscriber of Career Guidance dailies and periodical magazines. Thus, it becomes handy and easy for the aspiring students.

➢ Reference books for such competitive examinations are also available in library.

➢ The college is giving GATE coaching for the interested students every year.

5.1.8 **What type of counseling services are made available to the students (academic, personal, career, psycho-social etc.)**

The college has a Career Counselling Centre. Students will be counselled in building their career. The students who need psychological

counselling or any type of social counselling are also attended to very carefully. Almost all faculties participate in academic and personal counselling.

➢ Students of the First and Second year are properly guided by the teachers regarding their academics.

➢ After assessing test papers teachers help the students to improve and work upon their weaknesses. The mistakes made by the students are discussed and this discussion is followed by counselling.

➢ Seminars, workshops and project reports are followed by necessary guidance and counselling by concerned teachers at UG and PG level.

➢ At the time of examination students can approach the teachers with academic difficulties. Teachers solve them and instil confidence to ensure a good performance.

➢ Whenever the students and especially the girl students happen to go out of station for NSS, Cultural, Sports or academic activities the students as well as their parents or guardians are counselled.

➢ Talented students are identified and are personally guided in building a bright career.

➢ Students are personally guided regarding the solution of their social problems.

➢ Women development cell does counselling to the female students.

5.1.9 **Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).**

The Institution has an enviable placement record and most students have their careers   charted out well before they complete the graduation. This is one of the most prominent reasons for students preferring AEC for their technical education in engineering. The Training and Placement Cell conducts various CRT (Campus Recruitment Training) programs in association with external agencies like T.I.M.E (Triumphant Institute of Management and Education) and SMART, Soft Skills Training etc., The

above training programs are held in-house and thus prevent the students to go to the city for acquiring these skills. Technical skills are acquired during the process of their study and education in engineering programs.

The Students in addition to the technical skills develop their soft skills through the above training programs and make them suitable for employment. Such students can be readily absorbed by industries. Their confidence levels are augmented by conducting mock interview sessions. Leading industries like IBM, TCS, Wipro, Delsis, Aspire Systems, Ramtek, Zensar, visit the College for the campus recruitment.

The College also has a tie up with the Jawaharlal Knowledge Center (JKC) which provides training for the eligible students and through JKC many students have been placed in InfoTech, bridge It Solutions, Mahindra Satyam, Accenture etc., All the students who have been placed by the companies are encouraged and congratulated. On an average students receive a package of Rs.3.25 Lakhs, one of the best pays in the industries.

List of students who have been selected for campus interviews

Academic Year	UG						PG		
	ECE	EEE	MECH	CSE	IT	Civil	M.TECH	MBA	MCA
2013-2014	45	23	25	71	14	00	-	05	07
2014-2015	27	11	00	31	00	00	-	00	-
2015-2016	25	01	01	112	12	01	-	03	-
2016-2017	33	12	43	79	10	09	-	15	-

Students Placement Details
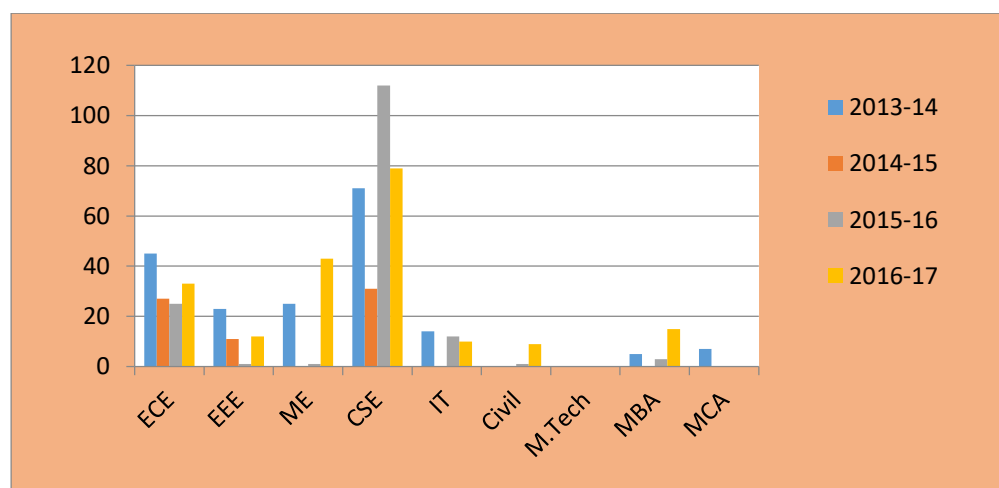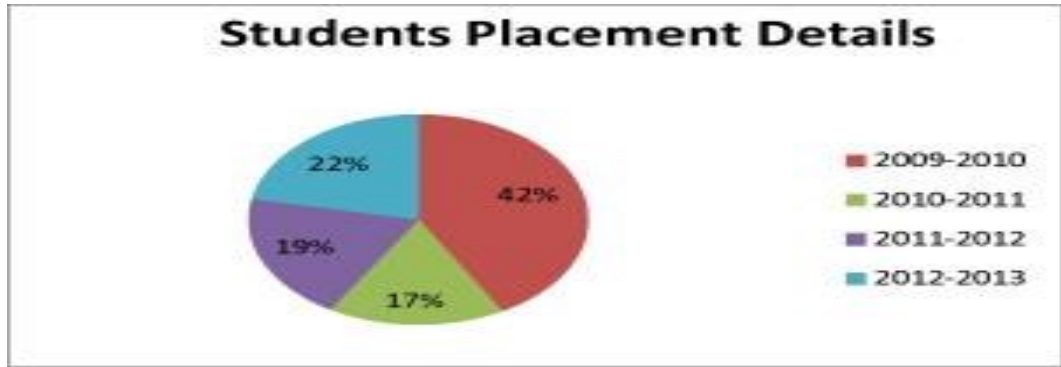
The List of Students selected during campus interviews by different employers is given below.

S.No	TKRCET(K9)	ECE	EEE	CSE	IT	MECH	CIVIL	MCA	MBA	TOTAL NO. OF ELIGIBLE FINALS
**2016-17**										
1	ZENSAR			4						4
2	APPS ASSOCIATES			1						1
3	AMAZON		1	10		4				15
4	ELEATION					23	3			29
5	TVARNA SOFTWARE			5						5
6	JUST DIAL	3		3						6
7	EXCERS (I) PVT.LTD.	3		3	1					7
8	REGALIX			1						1
9	VL	4		5	2					11
10	VL	5		5	4					14
11	UNITY BEES			2						2
12	GLOBUSSOFT	2		3						5
13	DELISIS	6	3	8	2					19
14	S2 TECHNOLOGIES	1		1	1					3
15	LANTECH					1	5			6
16	ASPIRES SYSTEMS	2		5						7
17	K-DIGITAL			1		1			2	4
18	BHEA			2						2
19	KASTURI	2	2	15		3				22
20	AXIS GLOBAL	2	3							5
21	CLOUD MACHINE			2	2					4
22	MULTIPLIER	3		1	2	3				9
23	VEE	2	2	5	1					10
24	SAPIENT GLOBAL	1		4						5
25	PROLIFICS			3	1					4
26	IBM			2	1					3
27	WESTLINE					2				2
28	MULTIPLIER	2		2	1					5
	Total	38	11	93	18	37	8	0	2	210

S.NO	Name Of The Company	ECE	EEE	CSE	IT	MECH	MCA	MBA	Total
				2015-16					
1	INFOSYS	2		3	1				6
2	TATA CONSULTANCY SERVICES	1		2	1				4
3	INRHYTHAM SOLUTIONS PVT.LTD			1					1
4	MIND TREE	24		25	6				55
5	INCESSANT TECHNOLOGIES			1					1
6	AMAZON.COM	4		7	1	1	1		14
7	EXCERS			3					3
8	POLARIS	2		3					5
9	CA			1					1
10	SIA GROUP	13		27	2				42
11	VERNIX TECHNOLOGIES PVT.LTD			1					1
12	AXIS BANK							3	3
13	COGNIZANT	2		2	1				5
14	42 HERTZ	20		29	3				52
15	TATA CONSULTANCY SERVICES		1						1
16	APPS ASSOCIATES			7					7
17	XSYSYS TECHNOLOGIES PVT.LTD.	5		5	3				13
18	PURE SOFTWARE	1		4					5
19	IDEXCEL TECHNOLOGIES PVT.LTD	12	3			7			22
20	MINDWAVE INFORMATICS	7		7	2	1			17
21	SOLVERMINDS SOLUTIONS	9		6	2				17
22	QUADSEL			31					31
23	AMAGI			29	3				32
24	ROBOSOFT TECHNOLOGIES	9		10	3				22
25	HFCL GROUP	3							3
26	INNOVACX			5	1				6
27	WIPRO	6	3	4		1			14
28	WEBYOG			9	4				13
29	CODILAR			34					34
30	GENPACT			3					3
31	MEGA JOB MELA	43	28	55	16	33	15		190
32	THINK & LEARN	7		8					15
33	CUSTOMISED					8			8
34	FANTEK					10			10
35	METAL CAD CAM COMPANY	16		44	4				64

36	UBER	4		3	1				8
37	NEXT SPHERE	17	2	26	4				49
38	ELCAMINO TECHNOLOGIES PVT LTD	17		22	1		7		47
39	ABACUS SERVICE CORPORATION			1					1
40	LEAD SQUARED	16		16	1		2		35
41	SOLVERMINDS SOLUTIONS	9		6	2				17
	Total	240	37	434	60	61	25	0	857

	2014-2015								
Sl..No.	Name of the Company								
		ECE	EEE	CSE	IT	MECH	MCA	MBA	Total
1	INFOSYS	2	2		1				5
2	AMAZON.COM	2	6	3		1			12
3.	MIND TREE	2	2	1					5
4	COMPUTER SOFTWARE SOLU.			7	1				8
5	NTT DATA	11	4	12					27
6	HYUNDAI MOTORS					6			6
7	TATA CONSULTANCY SERVICES			2					2
8	POLARIS	2							2
9	HCL	1		2	3				6
10	IBM		1						1
11	PATH PARTNER	4		4					8
12	VIRTUSA			1					1
13	MPHASIS			6					6
14	SIA GROUP		6	2		1	1		10
15	OAKRIDGE								17
16	CSC		1	2	1				4
17	COTE SOFTWARE INDIA PVT. LTD					5			5
18	GENPACT	2	2			2			6
19	SYNTEL	4	2	9		1			16
20	MEDICO.INK								
21	EDIKO SYSTEMS INTIGRATORS			35					35
22	SONATA	4		2					6
23	FINANCIAL SOFTWAR SYSTEMS				1				1
24	GREY CAMPUS			5	8				13

25	INITIATIVE		2			1			3
26	(UAE EXCHANGE FINACIAL SERVICES)	4	3	9	1				17
27	RELIANCE			2	1				3
28	CSS CORPORATION	8	5	15	5				33
29	PRATIAN TECHNOLOGIES			2					2
30	CONTENTERRA		1						1
31	TRACK TRANS			3					3
32	GOOGLE	8	5	7	4	3			27
33	DELL	5	2	5		2			14
34	RETAIL ON			5	1				6
35	ACT TECHNOLOGIES LTD	5		8	2				15
36	CYIENT			1					1
37	YARD STICK		8	1	1				10
38	AXIS BANK								3
39	TRIBRO SOFT TECH PVT LTD	5		5	1				11
40	EIDER			3					3
41	EHELIUM								7
42	EDUTOR TECHNOLOGIES			3	1				4
43	3X3 CONNECT	2		4	1				7
44	KNOAH			2					2
45	NCR				2				2
46	STIKER			3					3
47	IMI MOBIL	3							3
48	TOSHIBHA	7	7	12	1				27
49	MAGNA INFOTECH LTD			4					4
50	ADP			3					3
51	NET ELIXIR	2		1					3
52	MY DIGICITY.COM	4	1	1	1				7
53	HDFC BANK								1
54	MOLD TECH			1					1
55	KARVY								9
	Total	87	60	193	37	22	1	0	400

5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

Yes, The College has a Grievances Redressal Cell to attend the

problems if any faced by staff and students. The cell is formed with the Vice-President, Director, Principal, and all Department HODs as members. So far no serious incidents have occurred. Matters have been redressed at the Department level or by the Principal with the following committee members.

S.No.	Actual Designation	Designation in the Committee	2016-17	2015-16	2014-15	2013-14
1	Chairman	President	Dr. D.V.Ravi Shankar President	Mr.T.Amarnath Reddy	Mr.T.Amarnath Reddy	Mr.T.Amarnath Reddy
2	Member	Member	All Heads of the Departments	All HODs & Dr. Vara Prasad Reddy	All HODs & Dr. Vara Prasad Reddy	All HODs & Dr. Vara Prasad Reddy
3	Local Media Member	Member	Mr. Mahipal Reddy, Press	Mr. Mahipal Reddy, Press	-	-
4	Involved in Youth activities Members	Member	Mrs. K. Padmaja Devi Mrs. K.Sukanya	-	-	-
5	Civil & Police administration	Member	SI, Meerpet	SI	Meerpet	SI

It functions in the following manner:-
- ➢ Students, Teachers, Employees and others are encouraged to drop their grievances/complaints/suggestions in the Suggestion-Box provided in all departments
- ➢ The written complaints are read and attempts to resolve them are undertaken.
- ➢ Firstly, the matter is referred to the Department/ Section where from it arises.
- ➢ If the nature of the problem is of a serious one, the case is taken over

to the Principal.

Grievances addressed:

- Specific bus routes are introduced based on grievances received from stake holders.

- The last hour in the Timetable has been converted as **SFIP** (Student Faculty Interaction Period) based on the request made by the students for doubts clarification and others.

- Every Saturday is declared as a Holiday for the Final Years for their preparation for various competitive exams and placements.

The functions of the Cell include securing respect for Human Rights; making stake-holders aware of their powers, duties and responsibilities, promoting transparency and accountability; focusing on social justice and eliminating all sorts of discrimination against women. Till now no such untoward incidence has happened in the College.

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

The Institute's Women's Grievance cell, a separate department in the Grievance Redressal Cell, enquires into the problems faced by female staff and students. Gender discrimination is absent in the college. Sexual abuse and harassment has not been encountered so far. However, the college has constituted a women empowerment committee headed by a senior female faculty which does certain activities to keep the moral of girls/women

5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

College has an anti-ragging committee. The members of anti-ragging committee move around the college campus and make sure that the students are disciplined on the campus. The college administration makes a conscious effort to develop and maintain cordial relationship between junior (fresh admitted) students and senior students by way of organizing fresher's party as a custom. Till date no incidents of ragging of any kind have been registered.

Anti-Ragging Committee Members

S.No	Actual Designation	Designation in the committee	Member Name
1	Professor	Chairman	Dr. D V Ravi Shankar
2	Administrative Officer	President	Mr G L Narasimha Reddy
3	Professor	Member	Dr. B. Rajanikanth
4	Professor	Member	Dr. D.V.S.R. Anil Kumar
5	Professor	Member	Dr. G.Madhusudhan Rao
6	Professor	Member	Dr. Nageshwarrao
7	Professor	Member	Dr. S. R. Ramaswamy
8	Professor	Member	Dr. V. Prabhakar Rao
9	Hostel Warden	Member	Vijaya Lakshmi
10	Others	Member	Mahipal Reddy
11	Associate Professor	Member	Mr. Ailaiah
12	Others	Member	Mr. K. Indra Kiran Reddy
13	Others	Member	Mr. K. Srikanth
14	Professor	Member	Mr. M. Venkat Reddy
15	Associate Professor	Member	Mrs. P.Gayathri
16	Professor	Convenor	Dr.K M V Madan Kumar

5.1.13 Enumerate the welfare schemes made available to students by the institution.

The College provides highly hygienic canteen facilities and counselors to guide the students and bus facility to the surrounding areas of the college. There are specific provisions of welfare schemes for the students in the college. Some of the welfare schemes made available to students by the institution are as below:

➢ Remedial & doubt clearing classes in the SFIP period.

➢ Career guidance and counseling.

➢ Competitive examination guidance.

➢ Guidance for higher studies.

➢ Free and concessional medical treatment.

➢ SMS alerts on important occasions.

➢ Group mails to students on important information like Examination fees and time table, Fee submission dates, Holidays schedule and reopening dates.

➢ Book bank for economically weaker section.

➢ Fee payment on installment basis.

➢ Railway concessions.

➢ Internet facility.

5.1.14 Does the institution have a registered Alumni Association? If 'yes', what are its activities and major contributions for institutional, academic and infrastructure development?

Yes, the institution has an alumni association, the registration of which is being initiated. The alumni association whose meetings are mostly organized in the college campus includes many senior alumni participants. In the annual meeting we take the feedback from the members with regard to the curriculum and possibility of improvement/ suggestions for further enrichment of syllabus and also discuss the steps to be taken for the development of the college. We have developed a database of all alumni with information about their employment, their employers and nature of their present work, contact address, phone/mobile numbers and e-mail IDs. Such information helps the present students to contact the alumni for suitable placement. This database is updated regularly. Former students who got selected in various professional organizations at national and international levels are invited and asked to share their experiences. They are also given mementos by the college management.

5.2 Student Progression

5.2.1 Providing the percentage of students progressing to higher education or employment for the last four batches highlight the trends observed.

Student progression	%			
	2016-17	2015-16	2014-15	2013-14
UG to PG	-	25	21	23
PG to M.Phil.	-	-	-	--
PG to Ph.D.	-	1	2	0
Employed Campus selection	210	860	454	352
Other than campus recruitment	-	7	10	1

5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.

	Program	Course Name	No of Students Appeared	No of Students Passed	Pass %	Distinction	First Class	Second Class
2015-16		MECH	140	125	89.2	28	68	29
		CSE	177	139	78	47	69	23
	UG	IT	48	44	92	14	17	13
		ECE	145	139	95.86	58	66	06
		EEE	132	125	91.24%	18	40	32
		Civil	68	50	74	36	10	4

	Program	Course Name	No of Students Appeared	No of Students Passed	Pass %	Distinction	First Class	Second Class
2014-15		MECH	122	114	93.4	49	55	10
		CSE	113	101	89	42	49	10
	UG	IT	53	46	87	17	13	16
		ECE	142	138	97.1	67	61	10
		EEE	127	125	98.4	32	12	37
		CIVIL	63	59	94	36	23	0
	PG	MBA	77	71	92	60	10	1
		CSE						
	PG	Structural Engg	18	16	89	15	1	0
		SE	18	16	89	14	02	00
	M.Tech	VLSID	22	21	95.4	18	3	0
		Power	15	15	100	3	10	2

	Program	Course Name	No of Students Appeared	No of Students Passed	Pass %	Distinction	First Class	Second Class
2013-14		MECH	120	115	95.8	61	45	09
		CSE	122	114	93	59	51	4
	UG	IT	59	53	90	26	24	03
		ECE	125	125	100	72	41	12
		EEE	65	65	100	26	14	5
		CIVIL	67	60	90	43	16	1
	PG	MBA	36	33	92	6	15	11
	PG	CSE						
		EPS	19	18	94.73	3	11	4
		VLSID	23	21	91.30	19	2	0
		PE	13	13	100	3	8	2

	Program	Course Name	No of Students Appeared	No of Students Passed	Pass %	Distinction	First Class	Second Class
2012-13	UG	MECH	121	119	98.3	59	49	11
		CSE	103	103	100	73	27	3
		IT	50	48	96	14	30	4
		ECE	128	122	95.3	54	56	12
		EEE	64	58	90	20	26	18
		CIVIL	57	56	98	27	23	6
	PG	MBA	93	67	70	60	7	0
	PG (M.Tech)	CSE	24	24	100	19	5	0
		SE	18	16	98	12	4	0
		CAD/CA	11	11	100	10	1	0
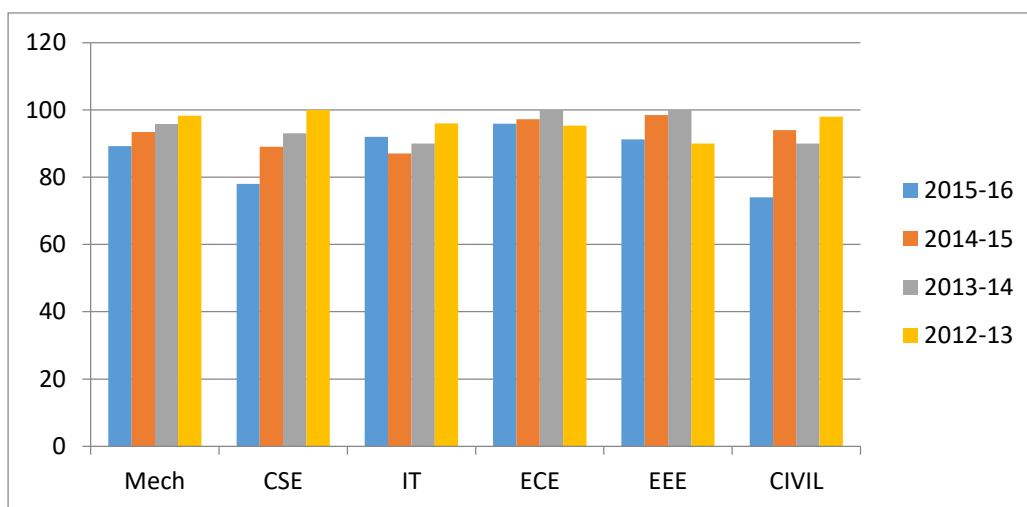
UG pass percentage
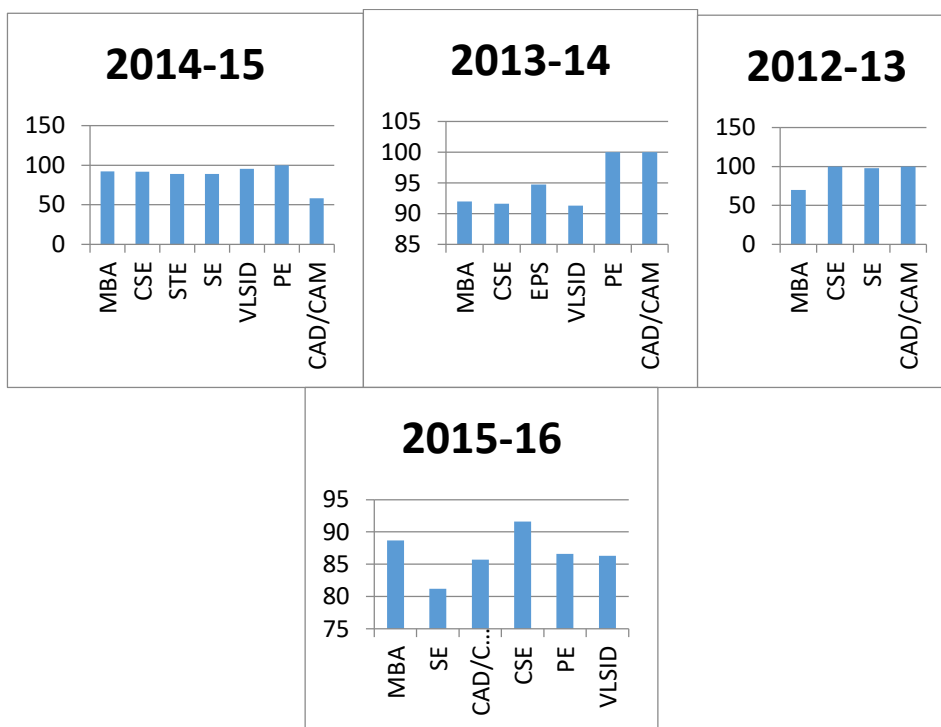
PG Pass percentage

5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

The institution makes a continuous effort to facilitate student progression to either higher level of education or get a suitable placement including commencement of his/her own entrepreneurial venture, at graduate level and post graduate level. The institute right from the beginning of the admission inculcates in the minds of the students that they have to be career oriented. The institution conducts career counseling sessions and placement activities under the guidance of T&P (Training and Placement) cell.

The institute from time to time makes arrangements for various guest lectures. Eminent personalities from diverse fields of industry and science are invited to interact with the students. This has facilitated the students in earning better job opportunities. The institution has been offering guidance and training for the student's placement in tune with the recent advancement in the industries. Around 40% of the students opt for Employment, 50% for higher studies and remaining 10% in other activities (Starting their own Business, Continuing their family business etc).

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

Special support & guidance is being provided to students to reduce the risk of the dropout. The attendance and the examination result of every student are sent in the form of letter and SMS to the parents regularly. The administrative wing headed by administrative officer will check the responsibility of counselling the weaker students and directly intimate about their performance to their parents.

All the departments offer counseling to the students through interactions in the extra hours. The economically weaker students and academically weak students are more prone to the risk of failure and hence are likely to be drop outs. The economically weaker students get the benefit of financial assistance from the college and hence are taken care of not to be drop outs.

The students who are slow learners are already identified on the basis of their performance in the internal exams and are given extra attention by

providing them remedial classes so that they can perform well in the University exams along with other students. In addition, the students of disadvantaged section of society (reserve category) get adequate amount of financial assistance/scholarships so as to ensure continuance of their education and not to be the drop outs.

5.3 Student Participation and Activities

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

The institution is having a separate Physical Education Department. Physical Education Director is appointed for training and coaching the students for various sports and games. The college provides excellent sports and games facilities in cricket, football, basketball etc. Our students excel in sports and games and are champions in University, State and National events.

Various cultural and extracurricular activities like folk dances, Classical singing, Group singing, theatrical items, traditional heritage items, fine arts items, Quiz, Literary items are offered to the students during the college annual day SHIZNAY Youth Fest.

5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. for the previous four years.

There are numerous achievements by the students of TKRCET. The most of them are at National and State Level Participations. In the Department of Electrical Engineering the students are much inclined in Co-Curricular Activities. In Department of Electronics & Communication Engineering the students are much inclined towards Extra Curricular Activities.

Department of Electrical Engineering

Year	Type of Activity	Event Participated	No Of Students Participated	Branch	Level
2016-17	Co Curricular Activities	Adaptive Variable Speed Control Scheme for Wind Based on PFC of	1	EEE	International
		Design and Simulation of SFCL in Grid Connected Applications	1	EEE	International
		Solar based E-Uniform for solders who work under extreme High and low temperature. ANVESHANA, Science Engineering	4	EEE	National
		Coupled Inductor and Switched-Capacitor Integrated High Gain Closed Loop Controlled DC/DC	1	EEE	International
		Three-Phase Diode Clamped Inverter using SVPWM Method for Induction	1	EEE	International
		A New Fuzzy Controlled PFC Based BL-CSC Converter for Grid Connected	1	EEE	International
		Three-Phase Harmonics Elimination Method for Micro-Grid Operations"	1	EEE	International
		A Three-Phase Harmonics Elimination Method for Micro-Grid Operations	1	EEE	International
		Renewable based DC Micro-grid using Fuzzy Control Technique for	1	EEE	International
		Dynamic Voltage Restorer for Power Quality	1	EEE	International
		Fast Energy Storage with Bi-Directional Controlled Converter Super	1	EEE	International
		A Multi Input High Gain DC-DC Converter PMSM Drive	1	EEE	International
		Design and Simulation of SFCL in Grid Connected Applications	1	EEE	International
		Application of FCL & SFCL in Distributed Generated System	1	EEE	International
	Extra Curricular Activities	BATTLE OF CHAMPION INTERNATIONAL SHOTOKAI KARATE-DO CHAMPIONSHIP-2016 Approved by: Karate Association of India Won: 1st Prize (Gold	1	EEE	International

Year	Type of Activity	Event Participated	No. of Students Participated	Branch	Level
2015-16		A New 31-Level Three Inverter Topology in Grid Interconnection Applications	1	EEE	International
		Improved Power Factor in Bridgeless Converter by Fuzzy Controlled Based SMSP Applications	2	EEE	International
		Employabilty Enhancement Program on " Positive Attitude a Gate way to Success"	1	EEE	International
2014-15	Co-Curricular Activities	Direct Field Oriented Control of Introduction Motor Fed by Wind Turbine Generator Under Saturation Effects	2	EEE	International
		Wind Power	1	EEE	International
		Modeling and Transient Performance Analysis of Three Phase Induction Motor Using MAT LAB/Simulink	2	EEE	International
		2DOF I-PD Model-Following Speed Controller for Field-Oriented Induction Motor Drive	1	EEE	International
		Single axis Solar tracking system ANVESHANA, Science Engineering Fair, held at Institution of Engineers Hyderabad	4	EEE	State
		National Level Student Competition on Renewable Energy Organized By:Tamilnadu Energy Development Agency (TEDA) 1.FULLY AUTOMATED SOLAR POWER BASED WATER FOUNTAIN 2.SOLAR POWER BASED LED LIGHTING 3.DUAL-AXIS SOLAR TRACKING SYSTEM	6 3 4	EEE	State

Department of Civil Engineering

Year	Type of Activity	Event Participated	No. of Students Participated	Branch & Year	Level
2016-17	Co-Curricular Activities	Paper Presetnation	2	Civil IV	National
		Seminar	1	Civil III	College
2015-16	Co-Curricular Activities	Paper Presentation	2	Civil III	College
		Seminar	2	Civil IV	National
2014-15	Co-Curricular Activities	Paper Presentation	1	Civil III	College
		Seminar	2	Civil II	College

Department of Electronics & Communication Engineering

Year	Type of Activity	Event Participated	No. of Students Participated	Branch & Year	Level
2016-17	Co-Curricular Acticvites	Paper Presentation	32	ECE	State
		Poster Presentation	12	ECE	State
		Technical Quiz	30	ECE	State
	Extra Curricular Activities	Digital India Programme	20	ECE	State
		Swacch Meerpet	150	ECE	State
		SHE Team Awareness Programme	60	ECE	State
		Helping a poor student suffering from blood Clot in brain	10	ECE	College
		Eye Checkup Camp	200	ECE	College
2015-16	Co-Curricular Activities	Paper Presentation	20	ECE	State
		Poster Presentation	10	ECE	State
		Technical Quiz	25	ECE	State

Year	Type of Activity	Event Participated	No. of Students Participated	Branch & Year	Level
2015-16	Extra Curricular Activities	Helping a Poor student suffering from blood cancer	10	ECE	Institute
		Plantation Programme	65	ECE	State
		Swacch Meerpet Programme	110	ECE	State
		Khadhi Day	120	ECE	State
		Cancer Awareness Week	50	ECE	State
2014-15	Co-Curricular Activities	Paper Presentation	10	ECE	State
		Poster Presentation	05	ECE	State
		Technical Quiz	20	ECE	
	Extra Curricular Activities	Clothes Distribution Week	50	ECE	Institute
		Blood Donation Camp	132	ECE	State
		Helping the Victims of Hud-Hud Cyclone	30	ECE	State

Department of Mechanical Engineering

Year	Type of Activity	Event Participated	No. of Students Participated	Branch & Year	Level
2015-16	Co-Curricular Activities	ROBO-ZEST 2015	3	MECH IV	International
		MECHATHALON-	118	MECH	University
2014-15	Co-Curricular Activities	2-day Workshop on Composite Materials and Manufacturing Process	84	MECH III IV	Institute
		Entrepreneurship	64	MECH IV	Institute

Department of Computer Science & Engineering

Year	Type of Activity	Event Participated	No. of Students Participated	Branch & Year	Level
2016-17	Co-Curricular Activities	Paper Presentation	4	CSE IV	State
		Seminar	5	CSE IV	State
	Extra Curricular Activities	JAM	1	CSE IV	State
		Debate	2	CSE IV	State
2015-16	Co-Curricular Activities	Paper Publication	9	CSE IV	National
		Workshop	4	CSE III	National
		Paper Presentation	5	CSE IV	State
		Seminar	6	CSE IV	State
	Extra Curricular Activites	Quiz	5	CSE III	State
		JAM	2	CSE IV	State
		Debate	1	CSE IV	State
		Group Discussion	1	CSE IV	State
2014-15	Co-Curricular Activities	Paper Publication	1	CSE III	National
		Workshop	13	CSE III	National
		Seminar	5	CSE III	National

Sports and Games

Year	Event	Sub-Event	College Name/ Place Name	No of Students Participated	Awards/ Merit	Level
2016-2017	Athelets	100mts	Tkrcet	58	II	Annual Sports Meet
	Baseketball		Bharat Engg. College	10	IV	Inter College
	Badminton		Vnr Engg. College	2	IV	Inter College
	Carroms		TKRCET	62	I & II	Annual Sports Meet
	Chess		TKRCET	52	I & II	Annual Sports Meet
	Cricket		Hindustan University,	5	IV	South Inter University
			Jain Trophy, Bangalore	15	I	State Level
			Red Bull Campus Cricket	15	I	State Level
			Sakshi Tournament	15	I	State Level
			Bits Bilani, Goa	15	IV	State Level
	Kabaddi		Tamilnadu	1	Participation	South Zone Inter University
			Abvp, Bharat Engg. College	12	I	Inter Engg. College
			Sakshi Tournament	12	IV	District Level
			Vnr Vjit	12	IV	Inter Engg. College
	Volley Ball		Kerala University	1	Participation	South Inter University
			ABVP, Bharat College	12	IV	Inter Engg. College
			Sakshi Tournament	12	IV	District Level
	Throw Ball		ABVP, Bharat College	12	I	Inter Engg. College
			Sakshi Tournment	12	Participation	District Level

2015-2016	Athelets	100MTS	TKRES	72	I & II	Annual Sports Meet
	Baseketball		ABVP, Bharat Engg. College	10	Winners	Inter College
	Badminton		Vnr Engg. College	2	II	Inter College
	Carroms		TKRES	80	I & II	Annual Sports Meet
	Chess		TKRES	60	I & II	Annual Sports Meet
	Cricket		Savitha University, Chennai	5	Participation	South Inter University
			Jain Troophy, Bangalore	15	III	State Level
			Red Bull Campus Cricket	15	II	State Level
			Sakshi Tournament	15	I	State Level
	Kabaddi		Bangalore	1	Participation	South Zone Inter University
			ABVP St. Mary's	12	I	Inter Engg. College
			Spoorty Engg. College	12	II	JNTU, Central Zone
			VNR VJIT	12	IV	Inter Engg. College
	Volley Ball		ABVP, St. Mary's	12	II	Inter Engg. College
			Sakshi Tournament	12	IV	District Level
	Throw Ball		ABVP, St. Mary's	12	I	Inter Engg. College

2014-2015	Athelets	100MTS	TKRES	80	I & II	Annual Sports Meet
	Baseketball		ABVP, O.U.	10	Participation	Inter College
	Badminton		ABVP O.U.	2	Participation	Inter College
	Carroms		TKRES	72	I & II	Annual Sports Meet
	Chess		TKRES	68	I & II	Annual Sports Meet
	Cricket		Kakatiya University, Telangana	3	III	South Inter University
			Jain Troophy, Bangalore	15	II	State Level
			Red Bull Campus Cricket	15	II	State Level
	Kabaddi		Jain University, Bangalore	12	Participation	State Level
			ABVP, VBIT	12	II	Inter Engg. College
			VJIT, Chilkoor	12	Participation	JNTU, Central Zone
			VNR VJIT	12	III	Inter Engg. College
	Volley Ball		ABVP, VBIT	12	Participation	Inter Engg. College
			Sakshi Tournament	12	Participation	District Level
	Throw Ball		ABVP, VBIT	12	II	Inter Engg. College
2013-2014	Cricket	-	Haryana	1	Winners	AP Inter district
	Basket Bakll	-	Haryana	5	Winners	Youth Fest
	Throw Ball	-	Haryana	7	Runners	Youth Fest
	Athletic	4x100	Haryana	4	2nd	Youth Fest
	Basket Ball	-	TamilNadu	1	-	National
	Basket Ball	-	Kerala	1	-	National

5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

The institution has the mechanism to seek the feedback from the students and staff Parents, and employers, all its stake holders to improve the growth and development of the institution. In the process of collecting feedback from students a special care is taken to hide their entity for obtaining more transparency in the system. The Feedback will be taken twice a semester one at the beginning and the other at the semester end. The suggestions and guidance from the authorities of the management and members of the executive body are used and implemented for the improvement in administrative and academic work along with infrastructure facilities. The IQAC endeavors to enhance the performance of the institutions by making the plan and policy on the basis of the feedback received from the graduates and the employers.

5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.

The institution has wall magazines published by each department. The wall magazine has a very good response from the students. Students display drawing, paintings, articles, poems, thoughts, latest trends in technology, social issues etc. on the wall magazine. The Students are encouraged to prepare the souvenir every year which consists of details about the students department wise.

5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

The institution does not have a student council. However, student chapter like ISTE, CSI, etc. exists.

5.3.6 **Give details of various academic and administrative bodies that have student representatives on them.**

The institute believes in giving opportunity to the students in supporting the authorities and the institute faculty in running the affairs of the institute. For this, the institute provides them with opportunities to participate in the various academic and administrative bodies. The various academic and administrative bodies and their activities (academic and administrative), which have student representations on them are:

- Anti Ragging Committee
- Disciplinary Committee
- Womens Grievance cell
- Greivance Redressal
- Alumini
- NSS
- Training Placement Cell

5.3.7 **How does the institution network and collaborate with the Alumni and Former faculty of the Institution.**

The Institute gives adequate impetus to have well activated network of alumni and former faculty of the institution. The institute has a well-defined career alumni association administered by duly nominated executive committee. The alumni association regularly meets in the college at least once in a year. The suggestions offered by the alumni during its meetings carry more importance and weightage in future developmental activities. The Institute traditionally maintains live contacts with its former faculty in more than one way. The former faculties are invited as an expert in the examination and for guest lectures. In addition, the former faculties are invited in the functions of alumni association.

The institution maintains a blog spot, FACEBOOK account through these all the Alumni and former faculties will be sharing their experience. This plays a major role in bridging the gap between the alumni and the juniors. Sharing of views and innovative thoughts with juniors not only develops their technical skills but also develops their personality which suits for Present market conditions.

The institutional best practices towards Students Support and Progression are:

➢ The Institute has big and airy classrooms, computer facility with internet connection, well equipped laboratories.

➢ Wi-Fi enabled Campus.

➢ Digitized Central Library, online video conferencing on recent technologies and reading room.

➢ As far as safety and hygiene of the students is concerned, the Institute provides safe drinking water facilities and toilet facilities with a good amount of cleanliness.

➢ Sport Center consists of various sports activities. Every year sports meet is conducted for the students besides the academic activities.

➢ Students are encouraged to involve in NSS and Blood Donation camp to create awareness in the society.

➢ The Institute has well-furnished hygienic hostel facilities separately for girls and boys.

➢ The Institute is providing bus facilities covering all the routes enabling the staff and students to reach safely to college.

➢ The students are trained in various technologies and makes them ready to face the campus interviews with full confidence.

➢ Project Club in the college helps the students to create innovative projects which also increases the employable opportunity.

CRITERIA VI
GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1   Institutional Vision and Leadership

6.1.1   What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

Since the current stage of Global education in life is rapidly evolving and changing, the management of the T K R Educational Society emphasizes in adapting modern management approach to achieve the best possible performance. The below given organizational chart describes about the people involved in the development of acts of education (teaching & learning processes and evaluation) the Head of the institute is empowered to take necessary steps like:

➢ Maintaining the Serene atmosphere provided, to enhance the educational content like knowledge, skills and human values.

➢ Setting up internal procedures to achieve quality performance.

➢ Determining goals and monitoring improvement through providing objective measurements.

➢ Keen on the participation of faculty members in conferences and seminars both National and International level.

➢ Adoption of quality performance by using modern methods and systems of work.

➢ Enhancing the interest in faculty by inculcating an environment to take up more and more R&D activities for the betterment of all the beneficiaries, for which the college is providing funding.

6.1.2   What is the involvement of the leadership in ensuring?

➢ The policy statements and action plans for fulfillment of the stated mission.

➢ Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan.

➢ Interaction with stakeholders.

➢ Proper support for policy and planning through need analysis & research inputs, consultations with the stakeholders.

- ➢ Reinforcing the culture of excellence.
- ➢ Champion organizational change.

The Management maintains transparency in communicating the intent of the organization to all its employees through clarity in authority and delegation to achieve positive results in improving performance of the institution through the following acts.

- ➢ Frequent Meeting of respective Governing body.
- ➢ Equality of opportunity among the staff.
- ➢ Creating intellectual and ethical wealth.
- ➢ Creating healthy organizational culture and climate through flexible organizational structures.
- ➢ Clarity in roles at each level along with job content and responsibility.
- ➢ Participative style of management through proper decentralization mechanism.
- ➢ Active participation of faculty members in scientific and professional associations through continuous monitoring.
- ➢ Making the employees a part in taking operational decisions.
- ➢ Provide code of conduct for teachers with regard to work schedule.
- ➢ Directing the staff and students by creating a new paradigm of participatory and cooperative education for academic excellence.
- ➢ Preparation of Manuals i.e., Course handouts by the staff for clarity on teaching learning process along with rules and regulations in the governance of the college.
- ➢ Sound mechanism of reward system, harmonious relations and resolving conflicts at all levels through the stakeholder's involvement.
- ➢ Principal is the sole authority to motivate and carry out a challenging assignment.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

Frequent staff meetings at department level and Heads meeting at institute level are organized along with representatives of various committees for effective and timely feedback. For effective

implementation of policies and plans, the institute emphasizes on the reviews made by various committees constituted like:

- Academic Advisory Committee.
- Placement Cell.
- Student Counseling Mentoring.
- Internal Quality Assurance Cell. (IQAC)
- Industry Institute Partnership Cell.
- Entrepreneurship Development Cell. (EDC)
- Class Review Committee.
- Disciplinary Committee.
- Grievance Redressal.
- Alumni Association.
- Student welfare Committee.
- Anti- Ragging Committee.

6.1.5 **Give details of the academic leadership provided to the faculty by the top management?**

The Management and Principal ensure harmonious climate of human relations between students, faculty members, and departmental heads leadership to enhance higher efficiency. The top management ensures great emphasis on Motivation for research and professional progression with a degree of liberty and also other acts of academics like:

- Pooling their academic resources, best expertise and experiences.
- Assigning faculty on various partnership and collaboration activities with industries and overseas & Indian education institutions as well.
- Giving autonomy to participate in R & D activities.
- Freedom of action and decisions.
- Freedom of research and publication.
- Freedom of thought and expression.

6.1.6 **How does the college groom leadership at various levels?**

The Institute decentralizes the duties & responsibilities for quick decision making. It also involves proper persons in the decision making and implementation process. It defines the levels and associates the proper

person for its implementation. The main levels are: administration, academic, Career Guidance, Training & Placement, Research, Students activities.

Grooming of leadership:

➢ The Institute creates the opportunity to demonstrate leadership to different levels.

➢ The Institute organizes various activities like games, training, social, cultural, co-curricular, and extra co-curricular events to enhance leadership in faculty and students.

➢ Campus Recruitment Training cell arranges seminars on leadership development.

➢ The Institute promotes the leadership among the students through student council.

➢ The Institute nominates University representative, Class representative, Hostel representative to develop the leadership quality among the students.

6.1.7 How does the college delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?

The Institute believes in enhancing quality of education and inspires the employees by creating trusting environment through

➢ Democratic participation

➢ Transparency and accountability

➢ Sharing and caring

➢ Decentralization of authority and responsibility

➢ Empowering HODs to plan and execute and giving free hand to their subordinates in ensuring institutional development, educational system development and student & community development.

➢ Financial autonomy to all Departmental heads is given in operational expenses and contingencies for departmental requirements through approval from principal.

6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

Yes, the College promotes a culture of participative

management by involving the entire faculty

➢ To participate for the assessment of NAAC and for the preparation of self-study report (SSR) and departmental profile.

➢ To work for various NBA Committees

➢ To take part in college -local community relationship

➢ To interact with human resources, research, community's productivity and service.

➢ To take part in college level activities

➢ Faculty are given free hand to communicate with middle level and top level management by sustaining policy matters, to solve their problems individually, team work for smooth flow and encourage individuals to express their views (as part of integration of employees).

➢ To coordinate with many committees at The Institute level under different designations like Chief Coordinators, Conveners etc.

6.2 Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

Yes, the institution has a formally stated quality policy. The quality policy in the form of vision and mission. It is reviewed by the information gathered from students, parents, various committee on teaching learning process and development of the institute are acknowledged for further improvement of the performance and decision making.

6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

Yes, a perspective plan is chalked out annually. It is based on the instructions from Head of institution after meeting all concerned heads of various departments and committees at institution level along with individual proposal at faculty level being considered for an agenda point for discussion at annual governing body meeting. The same will be reviewed periodically throughout academic year in measuring efficiency. The aspects to be included in the plan will be drawn from the following

committee recommendations with priority.

- ➢ Academic Advisory Committee.
- ➢ Placement Cell.
- ➢ Administration committee.
- ➢ Student Counseling Mentoring.
- ➢ Internal Quality Assurance Cell. (IQAC)
- ➢ Industry Institute Partnership Cell.
- ➢ Entrepreneurship Development Cell. (EDC)
- ➢ Class Review Committee.
- ➢ Disciplinary Committee.
- ➢ Alumni Association.
- ➢ Student Welfare Committee.
- ➢ Grievance Redressal.
- ➢ Anti- Ragging Committee.

6.2.3 Describe the internal organizational structure and decision making processes.
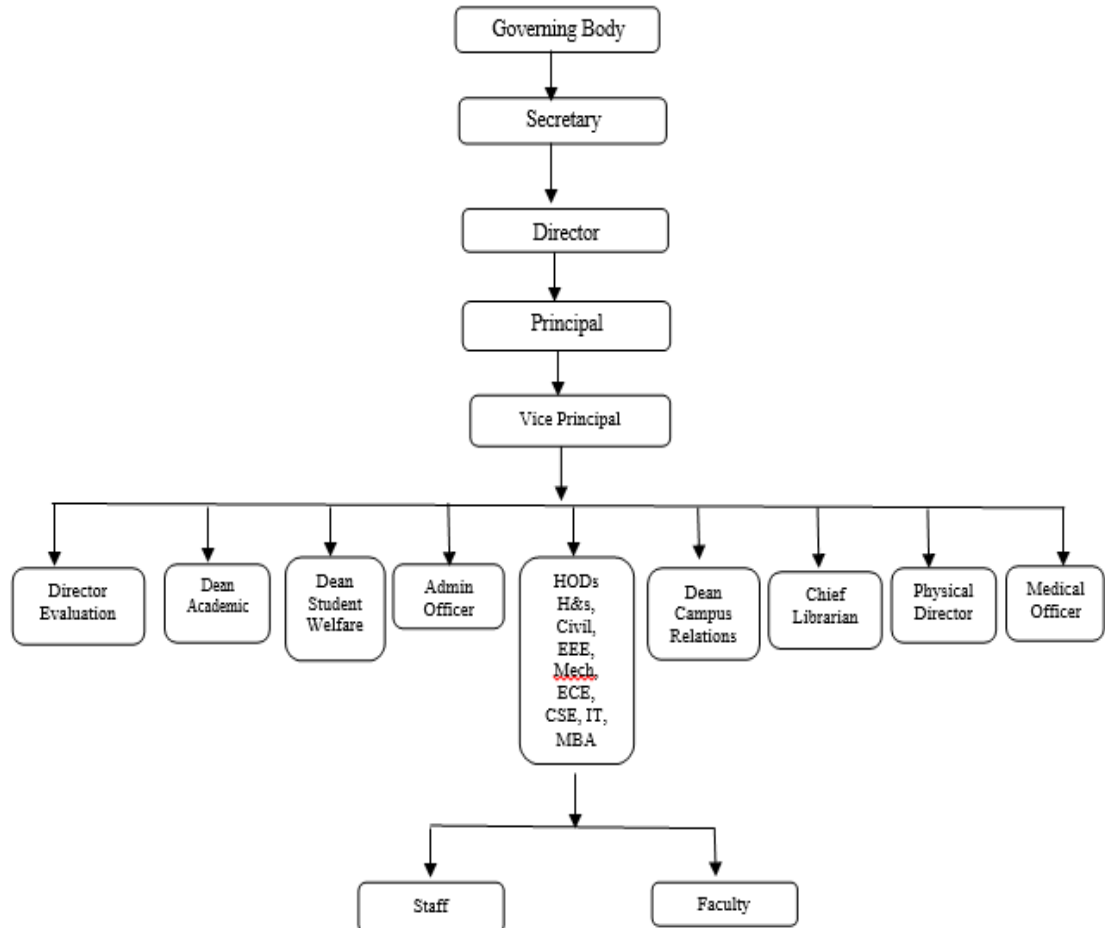
6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following

➤ **Teaching & Learning**
➤ **Research & Development**
➤ **Community engagement**
➤ **Human resource management**
➤ **Industry interaction**

Teaching & Learning

In the context of Liberalization, Globalization and Privatization the institution is imparting a global outcome based education system by enabling faculty to use the new teaching pedagogy with the support of Information Technology. It is now entering all walks of life and is creating new ways of communicating and working. As part of teaching and learning the college is engaged in providing and implementing the following.

➤ Remedial classes to slow learners.
➤ Communication Skills lab to enhance language skill of the student.
➤ Campus Recruitment Training.
➤ Short Industrial visits.
➤ NPTEL, MIT Video lectures.
➤ ICT environment.
➤ Use of LCD in every class.
➤ Digital learning technology (Digi Class Software)

Research & Development

The College is creating a very congenial atmosphere to the faculty for the sustainable development in the wake of modern challenges in imparting quality education. For which the college management is very cooperative in developing teaching fraternity by allowing them,

➤ To register for their PhDs as part of continuing education
➤ To engaging in AICTE funded projects
➤ To upgrade the qualifications
➤ To partner with Indian and overseas educational institutions for

improving standards on special leave

- To attend various training and developing activities at national and international level
- To contribute in serving the surrounding community through various R & D activities
- To actively participate in different professional bodies.

Community engagement

The Institute is engaged in Different types of Community Engagement programmes, one such is National Service Scheme involving activities like:

- Blood donation Camps
- Health camps
- Village adoption
- Providing food, clothes and other needs to orphans home, old age homes.
- Serving the people during natural calamities like floods, earthquake
- Contribution to charitable trusts.
- Swatch Baharat mission.
- ECO CLUB

Human Resource Management

At TKRCET, Management recruits adequate number of qualified teaching and supporting staff as per AICTE norms through codified procedures of open advertisement. The information is also made available on the college website (www.tkrcet.ac.in) encouraging academicians to apply directly. After short listing the eligible candidates based on the position wise criteria, we invite them to our campus for Demo and interview by Selection Committee. AICTE/Govt. of Telangana/JNTUH norms are adhered in appointment of faculty and supporting staff. Based on the strengths and weaknesses in the process and the outcomes of teaching, learning and evaluations the students and faculty will be trained

and appraised through the following stages:

- In the first phase, filling of the Faculty self-appraisal form by giving details of activities carried throughout the year in the area of teaching, training, consulting, research and academic administration.

- In the second phase, Head of the department recommends the appraisal based on the performance.

- At the final phase of appraisal, Head of the Institution will assess the quality of the faculty and will recommend for suitable increment.

The self-assessment report is one of the important yard stick used for the promotion of the faculty. It also emphasizes on the activities of the faculty in terms of their research and other activities. TKRCET makes efforts to identify and meet such needs to encourage the faculty. Faculty is given various opportunities to take part in developmental activities like:

- Attending and organizing Conferences, Seminars at National and International levels. These are mostly funded by the College.
- Conducting Conferences, Seminars and Workshops.

The shortfalls in the budget in conducting such activities will be borne by the College or the society. Those faculty members, who take part in such activities are also provided special leave. Suggestions to improve the academic system provided by the faculty through the self-assessment report are also taken into account by the College for the Institutional Development.

Industry interaction

As part of industry interaction adopts and initiates practices to find the expertise by not only recruiting faculty from industry but even it provides a platform for practical exposure to the students and faculty as well. The activities initiated are:

- Industrial Visits.
- Guest lectures by professionals from industry and academics.
- Invited lectures from industry.
- Industry Institute Partnership Cell.

> ➤ Entrepreneurship Development Cell.

> ➤ Professional Societies/Bodies.

6.2.5 **How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?**

 The principal as the Head of the institution ensures that adequate information (from feedback and personal contacts etc.) to review the activities of the institution is initiated through:

➤ Collecting Feedback from students periodically.

➤ Taking feedback and suggestions from Parents on periodical basis (through parents meet).

➤ Continuous process of counseling and mentoring mechanism by faculty coordinators.

➤ Periodical meetings with class review committee members.

➤ Alumni association recommendations to enhance the academic excellence.

➤ Monitoring student learning experience outside classroom with sustained learner care throughout the year.

➤ Assessment through Well-designed evaluation on the effectiveness of teaching and measuring the learning outcomes of the students.

6.2.6 **How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?**

 TKRCET plays a very vital role in bringing up the faculty forward to initiate and gain competitive edge through their personal involvement in many activities like:

➤ Heading various committees at college level.

➤ Empowering the individual faculty through decentralized functioning mechanism.

➤ Great level of flexibility in academic administration to make decisions.

> ➢ In designing the required training programs and updates it needs.

> ➢ In preparing annual plans.

> ➢ Freedom of action and decision.

> ➢ Freedom of thought and expression.

> ➢ Idea generation and implementation.

> ➢ Providing feedback to determine the degree of the positive impact on any proposed activity by the department/college.

> ➢ Formal/Informal gatherings with the Management periodically.

> ➢ Making faculty a leading front in many occasions such as Departmental technical fests every year, and SHZINAY national level event during March-April every year. National Level Conferences, workshops, seminars etc.,

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

The management council and BOG focusses on the improvement of the institution. A resolution is passed in last academic year focusing on the following.

> ➢ To confer Autonomous Status from UGC
> ➢ To obtain Accreditation from NAAC

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?

Yes, there is a provision by the affiliating university to proceed for the autonomy according to the status of the institution. The result of the efforts put in by the institution in obtaining autonomy is reflected in attaining 2(f) & 12(B) status of UGC Act 1956. The nominees and representatives from university are allotted for smooth functioning and conduction of academic activities from time to time.

6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder

relationship?

For promoting better stakeholder relationship, the institution has set up a Grievance Redressal cell to attend each and every complaint. The Institution immediately addresses the problems and solves effectively. The Cell is constituted by involving the following members.

1. Principal
2. Administrative Officer
3. All Head of the Departments
4. Faculty coordinator from concerned department
5. Class representative/Girls Representative
6. Class Toppers from both boys and girls.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

No court cases filed by / against the institute during the last four years.

6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?

Yes, the institution has a mechanism for analyzing student feedback on institutional performance. A continuous assessment/ feedback system is incorporated by covering few of the following aspects linking various levels:

Student-Faculty Level:
➢ Clarity of instruction

➢ Openness to facilitate interaction

➢ Plan of the lecture

➢ Usage of illustrations

➢ Punctuality etc.

Faculty-Department Level:
➢ Design and implementation of lecture schedules

- ➢ Faculty involvement in institutional life and work.

- ➢ Content generation, content storage, content packaging and content delivery mechanism etc.

With such mechanism of collecting feedback from the students, the institution is able to know the areas where the system is weak or strong. Accordingly action plan will be initiated to rectify the areas where the institution seems to be weak.

6.3 Faculty Empowerment Strategies

6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non-teaching staff?

The institution is making its efforts for the professional development of the teaching and non-teaching staff. The institution is served by various committees established for smooth conduction of class work and regular activities **(ANNEXURE VI)**

- ➢ Creating a mechanism for developing capabilities and skills for achieving higher quality and excellence

- ➢ Enabling staff to make use of the latest equipment through awareness programmes.

- ➢ Providing access to the Internet, audio-visual aids, software packages etc., as required.

- ➢ Facilitating institutional infrastructure, learning resources for effective curricular transactions.

- ➢ Mentoring the staff to attend academic activities like workshops, conferences, overseas collaborations and seminars to enrich the learning ambience.

- ➢ Multi-factorial transaction involving teachers, students, learning resources, training centers, institutional links and academic management.

- ➢ Conducting programmes on:
  - ➢ Managing stress at work.
  - ➢ Computer awareness program.
  - ➢ Office automation and accounts.
  - ➢ Motivation and team work.

➢ Time Management etc.,

6.3.2   What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

The Head of the Institution is the sole authority to motivate and empower the faculty to create a sense of direction and positive awareness to the departments on the teaching learning processes by:

➢ Making creative reforms in the system to reach excellence.

➢ Promoting use of modern technology.

➢ Creating sense of belongingness among the faculty and students.

➢ Using modern tools.

➢ Creating intellectual and ethical wealth.

➢ Pooling their academic resources, best expertise and experiences.

➢ Establishing a mechanism for individual presentations at department level.

➢ Imparting purposeful and well directed workshops and training to employees at work to create a healthy and positive environment.

6.3.3   Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

The achievements of faculty members are monitored and updated in the institute records. Performance appraisal system is implemented as per the guidelines from AICTE. The appraisal report of faculty is made by the concerned head of the department on the basis of his/her yearly achievements, discipline, quality etc. and is then submitted to the head of the institute. This besides the assessment of the teachers comes through the feedback forms, which in turn indicates the teachers' quality, by the students also. All the students from each and every class and section are expected to do so for all the teachers concerned with their classes. The identities of students are not disclosed. The feedback form has a well-defined set of questions that help the students to evaluate the teaching capacity based on lecture understanding and define how far the teacher has succeeded in reaching out to the students and attaining the course outcomes. These details are accessible to staff so as to help them judge their performance.

The Principal understands the student community reflections and shares it collectively and individually across the staff. If there are any issues of concern, the faculty member is facilitated to overcome the lacunae without lowering his self-esteem. Wherever required, counseling is provided to staff in order to help them improve their professional capabilities. In addition, the annual self-appraisal is conducted by issuing a specific format, based on which the Principal writes a report and the same is sent to higher authorities. The participation of the teachers in various institute affairs is closely monitored by the principal. The head of institution also uses evaluation in an informal way to improve the services of the office staff.

6.3.4   What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

The management always plays an active role in the performance appraisal of the staff. The management keeps a keen vigil on the working behavior of the members of the teaching as well as the non-teaching faculty. Annual increments and placement in the grades, Administrative responsibilities are all implemented under the signatures of the managing committee. The management has in the recent past gave due recognition to the teachers who have completed their Ph.D. in the form of Increments.

Similarly, the institute management after the appraisal of the faculty takes no time in implementing the benefits to the staff. The management takes effective decisions and provides the appraisal details to the appropriate stakeholders by incorporating the decisions in the proceedings of the meetings of the society and managing committee.

6.3.5   What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

The College Management provides the following welfare activities to the staff:

➢ Transport facility.
➢ Dress code for class –four, supplied free of cost.

- Subsidiary benefits at Canteen.
- Provident fund - The scheme has been availed by all the employees who are eligible.
- Group Insurance - The scheme has been availed by 80% of the employees.

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

TKRCET is providing all the facilities like fair reward system and timely promotions including the sixth pay commission salary as per the AICTE norms to retain the eminent faculty.

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

The institution always monitors the effective and efficient use of available financial resources for the infrastructural development and teaching learning process. Each and every rupee spent for the development is properly auditable by the charted accountant. Statutory audit as a specific concern enables a reporting system to the management express the reasonableness on the utilization of the financial resources.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

The College has a governing body consisting of university AICTE nominee, management representatives and other industry and Academic members. Every financial year budget proposals including income & expenditure details are being submitted by the college to the governing body for their consideration and approval. The proposals are made on different heads such as laboratory equipment, library expenses, salary payments, building infrastructure and other maintenance expenses.

Internal:

In the college there is an internal Financial Committee constituted which would examine the budget proposals, receipts, bills and vouchers and supporting documents for the current year. The financial

committee after the scrutiny, they may advice concerned departments for any possible improvement.

External:

The College has submitted the budget proposals and income and expenditure statements to the Audit Committee for the necessary audit. The Accounts were audited by External Auditor under the Income tax Act. The Audit was completed for the financial year 2015-16. There are no major audit objections.

6.4.3 **What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.**

As our college is self-financing institution, affiliated to JNTUH, we get the income mainly from tuition fee receipts, as fixed by Telangana State Fee Regulatory Authority (TFRA), governed by Government of Telangana. The expenditure mainly consists of salary payments, laboratory infrastructure & building infrastructure and maintenance. At some stages, the institute raises loans from banks for capital expenditure on various projects taken up. The deficit in operations will be met from funding by T K R Educational Society, which runs our institute.

6.4.4 **Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).**

In some cases, the funding may be raised from banks. Utilization of funds will be for specific projects with a systematic approach from planning to implementation with an underlying process of established internal control system in place.

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

a. **Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality**

assurance processes?

Yes, the Institution established an Internal Quality Assurance Cell. The following are the policies constituted for functioning of Internal Quality Assurance Cell of the institution,

- ➢ Maintain good discipline
- ➢ Regular conduct of class work, and laboratory work.
- ➢ Regular check on individual student attendance and assessment.
- ➢ Check on student programme.
- ➢ Continuous evaluation of academic performance.
- ➢ Check on soft and professional skills of students.

Pre & Post Review of Teaching learning process is performed the relevant format is enclosed in **ANNEXURE VI**

b. How many decisions of the IQAC have been approved by the management/ authorities for implementation and how many of them were actually implemented?

All the policies constituted for governance of IQAC in section 6.5.1(a) are approved and implemented by various institutional and department level committees. Wherein the outcome is meticulously considered for improvement.

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

No, there are no external members on the committee. However indirectly the involvement of all stakeholders play a role in improving the quality.

d. How do students and alumni contribute to the effective functioning of the IQAC?

Alumni and students, feedback are recorded in their corresponding meetings and shared accordingly across the IQAC committee for improving the performance of students academically.

e. **How does the IQAC communicate and engage staff from different constituents of the institution?**

IQAC Communicates with faculty and students through Heads of the Departments. All the Heads are members of IQAC.

6.5.2 **Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalization.**

All the academic bodies of the institution interact with IQAC. The advice of IQAC are followed and implemented carefully. Also the monitoring of activities is disclosed in the academic calendar given in **ANNEXURE VII.**

6.5.3 **Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.**

Yes, the institution takes all the care to maintain quality assurance to its staff. Institution provides training to staff as per the advice of IQAC.

The advantages of training are:
- Faculty is exposed to latest requirements
- Job Challenges
- Orientation of students' proficiency.
- Successful career achievements.

The following steps are adopted for the benefit of students and faculty.
- Faculty is sponsored to get trained in programmes such as
  a) Orientation and Refresher Prgorammes
  b) Summer and Winter Programmes conducted by University Colleges, NITs and IITs
- Encouraged to participate in conferences and seminars.
- Encouraged to apply for AICTE Projects.

6.5.4 **Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?**

Yes, the institution undertakes the Academic Audit as a regular

feature for continuous monitoring of the student academic performance and the affiliating university regularly monitors the performance regularly on the following:

- ➢ Monthly students' attendance
- ➢ Internal Exam Marks
- ➢ Semester Internal Marks
- ➢ Semester and exam marks
- ➢ Semester wise performance and comparison with other University affiliated colleges.
- ➢ Every Year Conferences and Seminars organized by the Institution as students participating in other institutions.

As measure of our good academic practices, the institution is renewed by accreditation board NBA, New Delhi in 2015 for three years.

6.5.5 How is the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

During placement of students by external recruiting agencies like MNCs, the requirements of the recruitment companies is provided to the students in the form of training and other practices. Academic Performance in the form of cut-off marks for being eligible for interview is maintained and students are regularly advised about the requirements. The above requirements are maintained by Senior Faculty, Heads of Departments and Principal.

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

The institution regularly collects student feedback and evaluates the teaching process of faculty and advices as their shortcomings.

- ➢ Head of the department separately evaluates the performance of the faculty.
- ➢ Performance of the students is continuously evaluated by the student counselors and mentors.
- ➢ Separate students counseling is available which advices each

student separately.

➢ Detailed course handout is to be prepared unit as per the prescribed syllabus and subject-wise lecture notes are required to be prepared by each faculty members.

➢ Lab manuals are prepared by the faculty and made available to the student in printed format.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

The institution is always sincerely and seriously interested to communicate its quality assurance policies, mechanisms and outcomes to the various internal stakeholders at regular intervals and is preparing to prove its planning and outcome worthwhile by the review by the external peer team like NAAC.

Any other relevant information regarding Governance Leadership and Management which the college would like to include.

The institute is committed to provide State-of-the-art facilities and cutting edge technologies. The dedicated services rendered by the management, faculty, staff and students will make this institute a strong learning and resource center. The institute approach to the learning outcome assessment is defined clearly. Faculty is best suited to determine the intended educational outcomes of their academic programs and activities, how to assess these outcomes, and how to use the results for program development and improvement is a part of student evaluation. The results of Outcome Assessment are used to evaluate the effectiveness of academic programs and activities, and student services, and not the performance of individual faculty or staff. Faculty use the information collected to develop and improve academic programs. The institute has a clearly defined, set mechanism to monitor the learning outcomes.

CRITERIA VII
INNOVATIONS AND BEST PRACTICES

7.1   Environment Consciousness

7.1.1   Does the Institute conduct a Green Audit of its campus and facilities?

Yes, the institute conducts a green audit on its campus and facilities through ECO CLUB. This institute is established in a pollution-free environment in nature lap. There are many trees on the campus which are taken care by the gardeners associated to the institute. Students of the campus extend their hands in planting and growing trees. Natural environment helps the students to have peaceful and calm mind which is required for the best learning process in the best educational system. It is our precious asset which is far from urban area and industry. We have formed a club of students and faculties named as "ECO CLUB" which conducts environment awareness programme time to time and make the college campus eco-friendly. Festive environment is created on environment day, ozone day, Tree plantation programme, etc. for Environment consciousness.

7.1.2   What are the initiatives taken by the college to make the campus eco-friendly?

Energy conservation

The classrooms and staff rooms are airy and well-lighted due to big windows and architecture of the building. Greenery and open space in all buildings consumes less electricity. The slogans on Energy- saving are displayed on each switch board, so that the students and staff members are always aware of the importance of electricity. So they utilize minimum electricity and try to save energy. It is instructed to all the faculties and students to switch off the lights and fans whenever class work is over.

Use of renewable energy

Solar energy (renewable) is also used on the campus for energy (non-renewable) conservation. A proposed 1 MW grid interactive Solar

PV Power Plant for captive conduction is going to be established shortly on the campus. The main motto of the project is to utilize renewable energy so that non-renewable energy can be saved. The advantage of this project is that there is uninterrupted power supply for 24 hours in the hostels and campus.

Water harvesting

These days we see a lot of scarcity of water everywhere. TKRCET has done a very wise thing by installing the Rain Water Harvesting Pits (RWHP). In that way, we are getting a huge amount of water whenever there is a downpour, which is not just of a better quality but free of cost as well. Rain water harvesting system ensured that both of our bore wells are always kept recharged and hence the campus has not felt scarcity of water for many years.

Efforts for Carbon neutrality

The Institute at its own level has taken up certain preventive measures to check the emission of carbon dioxide. The college has made arrangements for the parking of the vehicles of the students in the allocated parking area only. The outsider vehicles are strictly prohibited in the premises. Dust bins are arranged at every floor to maintain cleanliness. This helps in keeping the campus clean as much as possible. The dead leaves and the waste papers are not allowed to be put on fire. The leaves are buried in the soil itself and the papers are disposed to scrap vendors. Our institute is trying its level best in this area by making an effort to use more and more renewable energy sources. The hostel attached to the campus uses solar water heaters to uphold carbon neutrality. Plastic bags beyond standard specifications are strictly banned in the campus and specifically in canteen. Instead of plastic cups we use paper cups and paper plates for tea and snacks. We are trying to replace tube lights with CFL in the campus wherever it is possible, not only to save electricity but also to compress the carbon emissions that emit from tube light chokes. Electrical heaters are strictly banned in hostels. We

have also planned to generate electricity by means of solar devices shortly for our gardens, cricket ground and to meet out other requirements of electricity.

Plantation

Environment is one of the major influencing factors in our daily life. We have evergreen flowering and green plants in our campus. The green surroundings of the college do definitely put a positive impact on students' mind and the overall development of their personality. The college encourages the NSS students for plantation programmes not only in the college campus but also out of the campus which in turn develops an interest, awareness and responsibility towards our environment and its protection. The various departments of our college arrange plantation programmes to create awareness among the students and to maintain greenery in our campus. The students of Eco club have taken part in "Haritha-Haram" a state government initiative of planting trees to make the near future an eco-friendly environment.

Hazardous waste management

We being aware and knowing our responsibilities towards the environment, have proper disposal system for hazardous wastes. There is an eco-friendly system for chemical- waste from the Chemistry -lab. Effective housekeeping system is practiced where hazardous waste management is effectively taken care. Chemical waste is destroyed by appropriate treatment and paper waste is disposed. Every department has dust-bins which are cleaned up regularly.

E-Waste management

Due to frequent advancement in the technology various electronic Equipment /products/gadgets tend to become obsolete and hence there is a need of E-waste management. We have adopted an alternative approach to reduce the volume of e-waste generation by adopting the following procedures.

➢ Buy back system which includes giving systems back to the

company from where they are purchased.

➢ Donate old workable electronic equipments to other organizations.

➢ Reuse these equipments after slight modifications.

7.2   Innovations

7.2.1   **Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the institute.**

The innovative ideas of TKRCET students is exhibited by them in various scenarios, which are as follows:

➢ Won a cash prize worth 20,000 with a title "dual axis solar tacking system.

➢ Won a cash prize for the innovative project titled "Production of Electricity form piezoelectric transducers. In Anveshana science and engineering fair held at Hyderabad, on 21st and 22nd Jan 2014, organzised by Agasya International Foundation.

➢ One first prize for the project titled solar power based mobile chair in Technofest-2014, at GURU NANAK INSTITUTE OF TECHNOLOGY HYDERABAD during March 2014.

➢ One first prize at state level innovative project competition titled "Android age Solar LED lighting system. In ESIC-2014, held at Bangalore organized by International Journal of Innovative Research and development.

➢ Won third prize an amount of Rs. 10,000 on title "SMART ELECTRICITY UPDATE' in miniproject expo conducted by HYSA in coordination with JNTUH.

➢ Won third prize for the project title "High sensitive alcohol sensor with autocar igination disable function. Conducted by ANVESHNA & SNOPSIS during 2016.

➢ Proper and regular monitoring of the student performance through techniques like Class -Tests, Tutorials etc.

➢ Feedback from the students and other stakeholders

- Introduction of modern teaching aids and ICT in the Teaching - Learning Process.
- Active participation of teachers in various academic and administrative bodies.
- Promoting research and extension activities.
- Regular up-gradation of laboratories and instrumental facilities.
- Automation of the College Office for faster and more efficient performance with regard to financial tasks and service rendered to the students.
- The college has adopted MIS Solution for TKRCET. This Software also provides for complete management of student progress.
- The technical staffs of laboratories are made to undergo training as and when there is a change in syllabus.
- The administrative staff are periodically given training for enhancing computer and automation skills.

The role played by students in assuring quality of education imparted by the institution:

- **Feedback mechanism:**

Students give an online feedback about the teachers at the beginning and at the end of each semester. Besides, informal interaction between the students and the Class Teacher/H.O.D./Vice-Principal about issues pertaining to teaching quality is also encouraged. Teachers are counseled by the departmental head and/or vice-principal regarding measures to improve subject understanding and/or teaching skills.

- **Role of Class representatives:**

Two students are nominated as representatives from each class. These representatives help to communicate between the students and the teachers and Principal. Students Council which consists of class representatives conducts meetings regularly and this decision making body of student plays an important role in quality enhancement. Class

representatives have an important role inside as well as outside the class room. They have the liberty of interacting with the management regarding quality of lectures, quality of services and other facilities.

➤ **Role of student representative in various committees:**

We have given representation to students in various committees such as library committee, canteen committee, etc. Students are, therefore a part of decision making.

➤ **Direct Redressal of Problems:**

Students are encouraged to directly communicate to the head of the department or the Vice-principal regarding problems pertaining to any matter.

➤ **Suggestion Box:**

We have a suggestion box placed on the first floor, which is a medium for our students to come out with their grievances/suggestions, without disclosing their identity. Prompt action is taken for redressal of grievances.

➤ **Others:**

Through various co-curricular activities, debates, seminars and workshops, the students make it sure that quality of education is maintained. They are the active partners in the college NSS Programme. The Students of the College also organize various cultural programmes SHIZNAY etc.

Initiatives actions taken up by the institution to promote best practices in the institution. To promote best practices in the Institution, the following are considered vital by the College:

> ➤ Accepting responsibility for student discipline throughout their stay in the Campus.

> ➤ Coordinating with all the Departments and exchanging ideas in order to improve and provide a variety of approaches on the teaching situation.

> ➤ Executing all required Student-related assignments in time.

- Accepting the full share of student activity participation; such as attending contests, workshops and camps.

- Contributing constructively to Committees, faculty meetings and other policies from time to time.

- Taking positive steps in developing and maintaining faculty and student morale.

- Maintaining well-furnished and well ventilated class rooms and laboratories in a lush green campus.

In order to accomplish the above objectives, the institution sees to it that:-

- Students meet the teachers regularly to discuss better ways of preparing themselves

- Examination reforms are implemented

- To get feedback from parents/guardian, teacher-parent meetings are held regularly by the Principal.

In order to enhance the quality of the students, the institution has added value in the following ways:

- It encourages students to understand the rights and duties of citizenship as envisaged in the Indian Constitution

- Industries are invited to hold campus interviews in the college. All the recruiters have found the campus conducive to hold the interviews. They have reinforced their faith in the college infrastructure and the students' capabilities by repeating the process every year.

- The students are given Campus Recruitment Training though ARICENT TECHNOLOGIES in collaboration with NASCOM. Also the T & P division shares the resources like COSTCO in training the students.

> ➢ Several Companies like IBM TCS, INFOSYS, HCL, TECH MAHINDRA, INFOTECH, PROLIFICS, ACCENTURE, ASPIRE SYSTEMS etc. have conducted campus interviews in the college for the last five years.

> ➢ The college conducts seminars, workshops in tech-fests organized by the departments like PRATHIBHA, MECHATHALON, SKHYKAR, ECETA, AVISHKAR, Moreover, The College ensures that whatever needs to be done is done efficiently and effectively, with devotion and commitment, maintaining high standards.

7.3 Best Practices

7.3.1 Elaborate on any two best practices which have contributed to the achievement of the institutional objectives and/or contributed to the quality improvement of the core activities of the college

1. **Title of the Practice**
   i.   Emphasis on practical skills
   ii. Value added courses and training to students

2. **Goal**
   i.   To learn by doing.
   ii. To equip students as per the needs and demands of the Corporate world.
   iii. To keep students abreast with the state-of-art technology.

3. **The Context.**

> TKRCET mission of imparting quality education with an emphasis on practical skills and social relevance strategically has transformed the campus environment through its curriculum infrastructure and emphasis on more labs, mini and major projects, workshops etc. which gives students hands on experience. This skill-based education can make the transition between academic to work environment and life easy. It not only boosts student employment

prospects but also the confidence level among students to meet the real life challenges. Mere curriculum knowledge does not prepare a student to face the real world. Enhancing the skills, attitudes and personality are additional ingredients for a student to succeed. Technology and industry needs change more rapidly. Specializations are many and inter-disciplinary needs are growing. TKRCET has significantly recognized the need and introduced value added courses accordingly.

4. The Practice and the Evidence of the Success:

TKRCET created an excellent infrastructure in terms of spacious labs, equipped with State-of-the-art facilities constantly renewing the obsolescence, trained faculty, created a culture by suitably structuring curriculum and modifying time tables. Traditional two labs in each semester for engineering students is replaced by three labs in a semester and one session for lab in a week is enhanced to two sessions for each lab. The mini projects and main projects have been strengthened by conducting road shows. Specifically, the Mechanical Engineering Department strives in designing and manufacturing a certain laboratory equipment to suit the modified needs of the curriculum and cater the needs of the students.

The institution has constituted a research committee headed by Dean of Research to oversee the research and developmental activities through a Technology Cell. It extends full support and encourages in organizing conferences, funding students to attend student meets and workshops. As a result, Mechanical Engineering students have designed a flexural fatigue machine, chemical free water treatment system. Students of CSE developed feedback system for the college they also designed websites for institutions and individuals. Various certification courses like JAVA, OCP, Mobile gamming, NDT etc and training to students in domain knowledge are catered to meet the needs of industry. This additional input ensures that good numbers of students are placed in various companies. Some students enroll themselves into higher

education in prestigious institutions in India and abroad. Introduction of emphasis on practical skills resulted in changes within the students by increasing knowledge, developing skills and/or positively influencing attitudes, values and judgment resulted in overall improvement in pass percentage of academically weak students.

5. Problems Encountered and Resources Required

Major challenge faced in providing value added courses and training of the students include motivation, monitoring, sustained involvement of the staff, time constraints, enhancing hands on experience of students, increasing the usage of on-line learning resources, maximizing the usage of audio-visual equipment in classroom instruction. There is a significant variation in student intake capabilities considering rural, urban exposure, their language difference. The primary goal of value-added education is to change not only a student level of knowledge, but to enhance their ability to translate that knowledge into specific and positive behavior. Traditional approach leads to emphasis on examination and marks and the environment tends to focus on curriculum to a great extent hence it is imperative to reorient and refocus both the faculty and students as the overall development needs. Therefore, additional resources both in time and effort are needed. The resources include experts with individual background necessary software and hardware knowledge and above all judicious synchronization with the existing academic curriculum. Techniques such as procedural facilitation, scripted cooperation, and structured journals may prove useful tools in moving Value based education. Technology may also play an important role in adapting emphasis on practical skills for specific disciplines.

Evaluation Report

Department of CIVIL Engineering

Name of the department: Civil Engineering

1. **Year of Establishment**: 2008

2. **Names of Programmes / Courses offered**

S.No	Degree	Programme Name	Level (UG/PG)
1	B.Tech	Civil Engineering	UG

3. **Names of Interdisciplinary courses and the departments/units involved** :

S.No	Name of the Course	Year	Name of the Department Involved
1	English	I	H&S
2	Mathematics I	I	H&S
3	Mathematical Methods	I	H&S
4	Engineering Physics	I	H&S
5	Engineering Chemistry	I	H&S
6	Probability and Statistics	2-1	H&S
7	Basic Electrical Engineering	2-1	EEE
8	Managerial Economics and	2-1	H&S
9	Environmental Studies	2-2	H&S
10	Advanced Communication Skills Lab	3-2	H&S
11	Management Science	4-1	H&S
12	UG	I	Mechanical Dept.
13	UG	I&II	Science & Humanities
14	UG	III	Science & Humanities
15	Management		Department of MBA

4. **Annual/ semester/choice based credit system (programme wise) :**

Semester Based credit system

S.No.	Name of the Department	Courses
1	EEE	Electrical and Electronics Engineering
2	S&H	Managerial Economics and Financial anasysis
3	S&H	Probability and statistics
4	S&H	Environmental Studies

5. **Participation of the department in the courses offered by other Departments**: Civil

6. **Courses in collaboration with other universities, industries, foreign Institutions, etc**.: NIL

7. **Details of courses/programmes discontinued (if any) with reasons** :- 0%

Name	Designation	Qualification	Specialization	Experience
Dr. Durai Arulneyam	Professor	Ph.D	Environmental Engineering	20
B.Srinivasa Reddy	Assoc. Prof.	M.Tech	Geotechnical Engineering	40
G.Durga Prasad	Assoc. Prof.	M.Tech	Structural Engineering	39
K.V.R Satya Sai	Asst.Prof.	M.Tech	Remote sensing Engineering	15
A.Ramesh	Asst.Prof.	M.Tech	Structural Engineering	3
A.Swetha	Asst.Prof.	M.Tech	Structural Engineering	3
G.Thirupathi	Asst.Prof.	M.Tech	Structural Engineering	3
D.Himaja	Asst.Prof.	M.Tech	Structural Engineering	3
T.Sushma	Asst.Prof.	M.Tech	Structural Engineering	1
S.Ashok Kumar	Asst.Prof.	M.E	Structural Engineering	1
S.Bala Kumaran	Asst.Prof.	M.E	Structural Engineering	1
K.Mari Muthu	Asst.Prof.	M.E	Structural Engineering	1
M.Hemavathi	Asst.Prof.	M.E	Structural Engineering	1
C.Saranya	Asst.Prof.	M.E	Structural Engineering	1
A.Elango	Asst.Prof.	M.E	Structural Engineering	1
S.Selvakumar	Asst.Prof.	M.E	Structural Engineering	1
B.Sreekanth	Asst.Prof.	M.Tech	Structural Engineering	1

| J.Lavanya | Asst.Prof. | M.E | Structural Engineering | 1 |
| M.Kayal Vizhi | Asst.Prof. | M.E | Structural Engineering | 1 |

8. Number of Teaching posts

Designation	Sanctioned	Filled
Professors	1	1
Associate Professors	2	2
Asst. Professors	16	16
Total	19	19

9. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.)

10. List of senior visiting faculty :NIL

11. Percentage of lectures delivered and practical classes handled(programme Wise) by temporary faculty   : NIL

12. Student -Teacher Ratio (programme wise)   : 1:15

13. Number of academic support staff (technical) and administrative staff; Sanctioned and filled

Designation	Sanctioned	Filled
Technical Staff	0	0
Administrative staff	0	0

14. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D. / MPhil/PG.
   (i) PhD : 01   (ii)   PG   : 18

15. Number of faculty with ongoing projects from a) National b) International Funding   agencies and grants received   : NIL

16. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and Total grants received   : NIL

17. Research Centre / facility recognized by the University   : NIL

18. Laboratory is constructed to carryout student/faculty research work.

19. Publications   : 08

20. Areas of consultancy and income generated   : NIL

21. Faculty as members in National/International/Editorial Boards   : NIL

22. Student Projects:

(a)   Percentage of students who have done in-house projects including

       Interdepartmental / programme   **: 90%**

(b)   Percentage of students placed for projects in organizations outside the

       institutions i.e. in research laboratories/industry/other agencies **: 10%**

23. Awards/ Recognitions received by faculty and students :

S.No	Student	Awards	Year
1	K. Vaishnavi Iyengar	GOLD MEDAL(Best Outgoing Student of B.Tech(Civil Engineering) out of all affiliated colleges)	2014-15

24. List of eminent academicians and scientists/ visitors to the department

    I.   Mr. Mr. V.S.N. Moorthy, Superintendent Engineer, PWD

    II.   Mr. Dr. Awadhesh Kumar Bhardwaj , Professor, Malaviya National

         Institute of Technology, Jaipur

25. Seminars/ Conferences/Workshops organized & the source of funding

S.No	Name	National	International	Year
-	-	-	-	-

26. Student profile programme/course wise:

Name of the Course / programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
2012-13	60	57	40	17	100
2013-14	70	69	52	17	92.5
2014-15	67	65	43	22	88.1
2015-16	73	71	53	18	91.3

27. Diversity of Students last four years

Academic Year	% of students from the same state	% of students from other States	% of students from abroad
2009-2013	100	0	0
2010-2014	100	0	0
2011-2015	100	0	0
2012-2016	100	0	0

28. **How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.,?**

Sl.No.	Academic Year	No. of Students Qualified in GATE
1	2012-2013	3
2	2013-2014	5
3	2014-2015	3
4	2015-2016	3
5	2016-2017	3

29. **Details of infrastructural facilities**

Library No. of Volumes : **94**

Internet facilities for staff & students : **32**

Class rooms with ICT Facility : **01**

Laboratories : **08**

1. Strength of material laboratories

2. Fluid mechanics laboratories

3. Concrete and highway materials laboratory

4. Geotechnical laboratory

5. CAD laboratory

6. Geological laboratory

7. Environmental engineering laboratory

8. Survey laboratory

30. **Number of students receiving financial assistance from college, university, Government or \ other agencies** : **70%**

S.No.	Academic Year	No. of students
1	2013-2014	150
2	2014-2015	193
3	2015-2016	237
4	2016-2017	210

31. **Details on student enrichment programs (special lectures/workshops/seminar) with external experts**

1. Alcheringa-14 conducted by **Pro India association** with IIT-Gawhathi based on Structural Design by Using Staad.Pro

2. Civil Engineering Application in the field by **Mr. V.S.N. Moorthy**, Superintendent engineer, PWD.

3. Future Prospects of Civil Engineering by **Mr. V.S.N. Moorthy**, Superintendent engineer, PWD.

32. **Teaching methods adopted to improve students' learning**

   1. Evidence Based Teaching (Power point presentation)

   2. Audiovisual education or multimedia-based education

33. **Participation in instructional social responsibility (ISR) and extension activities (NSS – National Service Scheme)**

34. **SWOC analysis of the department and future plans**

   Strength

   Civil Engineering Department was established in the year 2009-2010 and offered B.Tech Civil Engineering, M.Tech structural Engineering and M.Tech Highway Engineering. The Department has well equipped laboratory facilities with good infrastructure. The faculties were well experienced and highly qualified. The average pass percentage of above 90% results were consistently maintained for the past 4 years were shown in Table 1.

Table 1 Average pass percentage of students

Name of the Course / programme	Pass Percentage
2012-13	100
2013-14	92.5
2014-15	88.1
2015-16	91.3

Which shows that the performance of Civil Engineering Department is extremely good in all aspects? Further it is evidenced by producing gold medallist by name Ms.Vaishnavi Iyyengar in the batch 2011-2015 of JNTUH B.Tech Civil Engineering Branch. Our students are well placed in the reputed construction industries and Government organizations (Table 2).

Table 2 List of Students working in reputed Organizations

Sl.No.	Academic Year	Name	Organizations	Designation
		B.TECH STUDENTS		
1.	2010-2014	Sandya	I & PD	AEE
2.	2010-2014	Prashant	Panchayth Raj	AE
3.	2011-2015	K.Vaishnavi Iyengar	RWS	AEE
4.	2011-2015	M.Ravikanth	Government Organization	
5.	2011-2015	J.Arun kumar	TRR	Asst. Prof.
6.	2011-2015	P.Anil	Mahaveer college	Asst. Prof.
7.	2011-2015	Amrutha	Panchayth Raj	AE
8.	2011-2015	Ramesh	Mahaveer college	Asst. Prof.
9.	2011-2015	Embermandleo	Contractor	
10.	2010-2014	Sai Kishore	Ramki	Design Engineer
11.	2010-2014	Surya kumar	LMR Constructions	Technical Assistance
12.	2012-2016	Hamithi	A&H Consultancy	Entrepreneur
		M.TECH STUDENTS		
1.	2014-2016	Swathi	TKREC	Asst. Prof.
2.	2014-2016	Krishna reddy	TKREC	Asst. Prof.
3.	2014-2016	Jayamma	TKREC	Asst. Prof.
4.	2014-2016	Rajietha	CMRCET	Asst. Prof.
5.	2014-2016	Lavanya	TKREC	Asst. Prof.

Some of our passed out students are pursuing their P.G in USA Universities their details are shown in table 3.

Table 3 Abroad Higher Studies Students details

Sl.No.	Academic Year	Name	Place
1.	2012-2016	Shruti	Australia
2.	2012-2016	Bharat reddy	Australia
3.	2011-2015	Nampalli sreekanth	USA
4.	2012-2016	Chetan koundinya	USA
5.	2011-2015	Naveen kumar	USA
6.	2011-2015	Hemanth	Australia
7.	2011-2015	Sai kiran	USA
8.	2012-2016	Sai BVRN	MBA in Mumbai
9.	2012-2016	Bhargav Reddy T	MS in Australia

The Department has organized the Civil Engineering Exhibition 'ADVITIYA' in the year 2013-14 & 2015-16. The Department is functioning in the separate five storey building block with computer, internet and Wi-Fi facilities.

Weakness

        The admission system of JNTUH enables us to accommodate all categories of students from both cities and rural areas, so the Department is facing huge challenges to feed the English communications skills to the rural students. Hence we have established a separate system for English communication. We do face problem from students by not attending the classes regularly in spite of our strict vigilance, monitoring system and control measures. This has been overcome by the establishment of biometric attendance system from February-2017 onwards.

Opportunities

        The institution has provided conducive-learning environment for the students, with large area of greeneries. It has well equipped auditorium and library facilities. We encourage and give importance to the physical health of students by providing separate play area for cricket with stadium, basketball ground, volley ball ground, shuttle cock, indoor stadium with gymnasium and table tennis for both girls and boys. The institution has sophisticated food court by providing hygienic food to the students. We also give importance to improve the mental health of the students by creating spiritual atmosphere in the campus. (Goddess Saraswathi statue)

Challenges

        Due to increasing competition, we face great challenges by placing our rural students in reputed organizations, due to their lack of communication skills. However our institution has been awarded "BEST IN PLACEMENT" by "WORLD HRD CONGRESS" in the year 2016-2017.

35. Skill Development Programmes

S.No	Academic Year	Date	Programme	Speaker/ Expert	In Association with
1.	2014-15	14-03-2014 15-03-2014	Staad Pro – AL Cheringa – 14	Conducted by PRO-INDIA ASSOCIATION.	Civil Department, IIT, Gauhathi.
2.	2015-16	10-03-2016 11-03-2016	ADVITIYA (Civil TechFest)	Sri Gopal Naik,	Civil Department, OU
3.	2016-17	NIL			

Evaluative Report

Department of Electrical and Electronics Engineering

1. **Name of the department :** EEE

2. **Year of Establishment** : 2002

3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., UG, PG Integrated Masters; Integrated Ph.D., etc.)** :UG & PG

4. **Names of Interdisciplinary courses and the departments/units involved :**

S.No	Name of the Course	Year	Name of the Department Involved
1	English	B. Tech I Year/I sem	S&H
2	ELCS	B. Tech I Year/I sem	S&H
3	Mathematics	B. Tech I-I, II-I,	S&H
4	Engg. Physics	B. Tech I Year/I sem	S&H
5	Engg. Chemistry	B. Tech I Year/I sem	S&H
6	C&DS	B. Tech I Year/II sem	CSE
7	Engg. Drawing	B. Tech IYear/II sem	Mech
8	Electronic Devices & Circuits and Lab	B. Tech II Year/I sem	ECE
9	Management Sciences	B. Tech III Year/I sem	S&H
10	ACS Lab	B. Tech III Year/I sem	S&H
11	Micro Processors and Micro Controllers Lab	B. Tech IV Year / Isem	ECE

5. **Annual/ semester/choice based credit system (programme wise)** : Semester/CBCS

6. **Participation of the department in the courses offered by other Departments**: EEE

S.No.	Name of the Department	Courses
1	Civil	Basic Electrical &Electronics Engg.
2	EEE	Basic Electrical &Electronics Engg.
3	Mechanical	Basic Electrical &Electronics Engg.
4	CSE	Basic Electrical &Electronics Engg.
5	ECE	Basic Electrical &Electronics Engg.
6	IT	Basic Electrical &Electronics Engg.
7	ECE	PEE, NT, ECA
8	CSE, IT	BEE
9	Mechanical, Civil	EEE

7. **Courses in collaboration with other universities, industries, foreign Institutions, etc.:** *Battery Bikes, Weniyard, Ambest Technologies. : NIL*

8. **Details of courses/programmes discontinued (if any) with reasons :** *NIL*

9. **Number of Teaching posts**

Designation	Sanctioned	Filled
Professors	3	3
Associate Professors	5	5
Asst. Professors	28	28
Total	33	33

10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

Name	Qualification	Designation	Specialization	No. of Years of Experienc
Dr. G. Madhusudhana Rao	M. Tech., Ph. D	Professor & HOD	M Tech., Ph D	17
Dr. S. Narasimha	M. Tech., Ph. D	Professor	M Tech., Ph D	14
Dr. P. Sankar Babu	M. Tech., Ph. D	Professor	M Tech., Ph D	10
K. Kalyanraj	M. Tech.,(Ph.D)	Asst. Prof	M Tech (PE)	0
V. Swarupa	M. E (Ph. D)	Assoc.Prof	M.E (PS)	13
B. Shankaraiah	M. Tech (Ph. D)	Assoc.Prof	M. Tech (PS)	11
M. Chinnalal	M. Tech	Assoc.Prof	M Tech (EPE)	10
V. Sangeetha Sarali	M. Tech	Assoc.Prof	M Tech (PE)	9
Durga Naik Banavath	M. Tech	Assoc.Prof	M TECH (PID)	8
S. Srinivas	M. Tech	Asst.Prof	M TECH (CS)	7

B. Divya	M. Tech	Asst.Prof	M TECH (EPE)	7
A. Anjan Kumar Yadav	M. Tech	Asst.Prof	M Tech (PE)	4
S. Manohar Reddy	M. E	Asst.Prof	M E (PS)	4
G. Mallikarjuna	M. Tech	Asst.Prof	M Tech (EPS)	4
Ch. Ramanjaneya	M. Tech	Asst.Prof	M TECH (PSE)	3
Y. Santhosh	M. Tech	Asst.Prof	M Tech (PE)	2
Sattar Pasha Shaik	M. Tech	Asst.Prof	M TECH (PEED)	4
B. Sharath Kumar	M. Tech	Asst.Prof	M Tech (EPS)	3
A. Madhusudhan	M. Tech	Asst.Prof	M Tech (EPS)	3
G. Suresh Kumar Reddy	M. Tech	Asst.Prof	M Tech (PE)	3
K. Swetha	M. Tech	Asst.Prof	M TECH (EPS)	2
N. Shanker	M. Tech	Asst.Prof	M Tech (EPS)	1
K. Subhash	M. Tech	Asst.Prof	M TECH (PSC&A)	1
G. Rajesh	M. E (Ph. D)	Asst.Prof	M. E (EPS)	1
S. Devender Reddy	M. Tech	Asst.Prof	M Tech (EPS)	1
K.Hemanth Kumar	M. Tech	Asst.Prof	M Tech (PE)	4
S. Venkatesh	M. Tech	Asst.Prof	M Tech (PE)	3
V. Srikanth	M. Tech	Asst.Prof	M Tech (PE)	4
K.Ganesh	M. Tech	Asst.Prof	M Tech (PE)	4
N. Keerthi	M. Tech (Ph. D)	Asst.Prof	M Tech (PE)	1
K. Guna Shekar	M. Tech	Asst.Prof	M Tech (PE)	1
M. Devadarshanam	M. Tech	Asst.Prof	M Tech (PE)	3
D. Sharath Kumar	M. Tech	Asst.Prof	M Tech (EPS)	1

11. List of senior visiting faculty

Visiting Faculty	AYm2 (2014-15)	AY m1 (2015-16)	AY (2016-17)
Dr.S.C.Gupta	5	5	5
Dr.C.Radha Krishna	5	5	3
Prof.K.B.Raju	5	-	-
Ch.Channalal	5	-	-
Dr.P.V.Rajagopal	-	3	3
Prof.R.Kannan	-	3	5
Total	20	16	16

12. **Percentage of lectures delivered and practical classes handled(programme wise) by temporary   Faculty**   : 0

13. **Student -Teacher Ratio (programme wise)** : 1:15

14. **Number of academic support staff (technical) and administrative staff; Sanctioned and filled**

Designation	sanctioned	Filled
Technical Staff	5	5
Administrative staff	1	1
Attenders	2	2

15. **Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D. / MPhil/PG.**

   (i) PhD :3   **(ii) PG: 30**

16. **Number of faculty with ongoing projects from a) National b) International funding agencies   and grants received   : 01**

17. **Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received from the AICTE under the MODROBS** : Rs. 9,15 ,026

18. **Research Centre / facility recognized by the University**   : --------

19. **Publications**   : 45   (AY 2014-15, 2015-16, 2016-17)

20. **Areas of consultancy and income generated** : **Battery Manufacturing (Power Electronics)**

21. **Faculty as members in National/International/Editorial Boards   :08**

Faculty	Designation	Name of the Journal/Conference	As Reviewer	As Editor
Dr.G.Madhusudhan aRao	Professor	1.IJTES	Yes	Yes
		2.Academic Journals	Yes	--
		3. IJCSE	Yes	--
		4.IEEE Transactions on Industrial Informatics	Yes	---
		5. **IJESET**	Yes	Yes
Dr.P.Sankar Babu	Professor	ICPET	Yes	---
Dr. S. Narasimha	Professor	ICCMPES	Yes	----
Mr. S. Srinivas	Asst. Prof	IJEEE	Yes	---

22. Student Projects:

    (c)Percentage of students who have done in-house projects including

      Interdepartmental/ programme   : 75%

    (d) Percentage of students placed for projects in organizations outside the institutions

        i.e. in research laboratories/industry/other agencies :25%

23. Awards/ Recognitions received by faculty and students

S.No	Student	Awards	Year
1	Vivek Vilas Potdar T Harish T Lokesh V Dinesh Kumar	1. **SINGLE AXIS SOLAR TRACKING SYSTEM Project** "Won cash Prize of **Rs. 20,000"**	2014-2015
2	K.Anuraag Goud D.Prashanth B.Nivedita B.Sadwin B.Tech (EEE) Final Year	Solar based E-Uniform for solders who work under extreme High and low temperature. ANVESHANA, Science Engineering Fair, held at Institution of Engineers Hyderabad, "Won cash Prize of **Rs. 20,000"**	2015-2016
3	Rashmi Rai K.Veeraiahchowdary G.Prashanth Charitha D Mohommad Ali Surendhra K	Development and Implementation of Photo-Voltaic power Supply based Electric Mobile Chair TECHNOFEST 2014 Prize of **Rs. 3,000"**	2013-2014

24. List of eminent academicians and scientists/ visitors to the department

S.No	Name of the Academics	Designation	Organization	Purpose of Visit	Date
1.	A. Manipal	Professor	ACE Academy	Control System GATE pattern	27/12/2016
2.	M. Srinivasan	Scientist-C	DRDL	Expert Lecture on Machines	03/03/2017
3.	Dr. B. Vijayalaxmi	IEEE-WIE	VITS	Orientation Progaramme on WIE	04/04/2017

25. Seminars/ Conferences/Workshops organized & the source of funding:

S.No.	Name	National	Year	Source of founds
1.	Work shop on Printed Circuit board (PCB)	National	2016-2017	Institution
2.	Workshop on e-CAD	National	2016-2017	Institution
3.	Seminar on Solar Power	National	2016-2017	Institution
4.	Seminar on Micro grids	National	2016-2017	Institution
5.	Workshop	National	2015-2016	Institution
6.	Seminar	National	2015-2016	Institution
7.	Workshop	National	2014-2015	Institution
8.	Seminar	National	2014-2015	Institution

26. Student profile programme/course wise:

Name of the Course / programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
2016-2017 (EEE) B. Tech I Year	650	104	81	23	65%
2015-2016 (EEE) B. Tech I Year	500	94	69	25	68%
2014-2015 (EEE) B. Tech I Year	500	94	62	32	71%
2013-2014 (EEE) B. Tech I Year	400	89	65	24	68%

27. Diversity of Students last four years

Academic Year	% of students from the same state	% of students from other States	% of students from abroad
2009-2013	100%	----	----
2010-2014	100%	----	----
2011-2015	100%	----	----
2012-2016	100%	----	----

28. How many students have cleared national and state competitive examinations

Such as NET, SLET, GATE, Civil services, Defense services, etc.?

S.No.	Academic Year	No. of students Qualified in GATE
1	2013-2014	15
2	2014-2015	13
3	2015-2016	18
4	2016-2017	15

29. Details of Infrastructural facilities

Library No. of Volumes: 481

Titles: 47

Internet facilities for Staff &Students: Wi-Fi with 200 mbps

Class rooms with ICT facility: 15

Laboratories: 13

30. Number of students receiving financial assistance from college, university, Government or other agencies:

S.No.	Academic Year	No. of students
1	2013-2014	72
2	2014-2015	75
3	2015-2016	73
4	2016-2017	85

31. Details on student enrichment programmes with external experts

Department	Year	Programme
EEE	2013-2014	1.Workshop on Smart Electrical Power grid 2. ISTE Guest Lecture on 'Cyber Laws and Intellectual Property'
EEE	2014-2015	Guest Lecture on Indian power Sector Overview Steps Towards Smart grid Advances in Power Systems
EEE	2015-2016	Guest Lecture on Power Electronics and Drives.
EEE	2016-2017	Guest Lecture on Control Systems, Guest Lecture on Conservation on essentials of Life.

32. Teaching methods adopted to improve student learning :

The department has engaged students in active learning with the help of available resources i.e. library, internet facility in computer lab. All the students of the college are divided into various two groups like Fast learners and slow learners. It is the priority of the department that all the students will interact with each other. Some individual and group projects are distributed to develop the feeling of tolerance, co-operation, brotherhood and socialization of the student mentor. Various co-curricular activities are arranged by the department to draw out the best from the individual and to give proper direction and platform for internship, role playing and practicum etc.

The teaching learning process is actually student centered. A detail course plan for each department is prepared in the department with the teachers and it is given to the students. They are also given advice on learning processes and use of reference text books, journals, and internet. They are also encouraged to know the

subject beforehand which will help them to understand the subject better and inculcate the habit of lifelong reading and learning and also knowledge management skills.

a). **Seminar method of teaching**: the students will be given some topics and the references including the internet websites and journals. The seminar paper will be corrected and the students will be presenting the paper in the class.

b). **Quiz Programme:** Quiz programme in the subject and allied subjects beyond curriculum is conducted.

c). **Co-Curricular Activities:** Formation of association in each subject area and inviting guest lectures.

d). **Cultural Activities:** By conducting these programmes the students are having knowledge in organizing capacity and leadership.

e). **Personality development:** Guest is invited to give programme and conduct workshop to develop the personality.

f). **Educational trips:** Students are taken to educational trips.

g). Citizenship training camp gives students exciting learning experience.

h). Health camp helps students to get their doubts cleared regarding the health problem.

The following are the various models of teaching:

Chalk and talk method

Using LCD – Power point presentation

Using OHP Projector

Audio/Video Presentation

Video feed back teaching: An innovative method developed by our department teachers

➢   Interactive method

➢   Program learning

➢   Computer learning

➢   Experimental learning

➢   Seminar/workshop

➢   Discussion

There is a provision for additional training in models of teaching like Technology enquiry training model, general concept attainment model.

Steps of Model:

- Preparation
- Presentation
- Comparison
- Generalization
- Evaluation/observation
- Preparation for practice teaching

Lesson Plan: Special sessions are devoted for the preparation of lesson plan, course hand-out and related requirements. Different aspects / step in lesson planning like stating objectives in general and behavioural terms, breaking of contents into teaching points / steps, teaching aids and method / approaches are discussed.

The department has a provision for additional training in models of teaching before starting micro teaching and mega lesson in simulated conditions. .

33. Participation in Institutional Social Responsibility (ISR) and Extension activities (NSS- National Service Scheme):

The Department of EEE students have been participating in many event like

1. Blood Donation Camps in our College
2. SWACH BARATH
3. NSS Program

SWOC analysis of the department and Future plans:

Strengths

The EEE department was established in the year 2002-03 with an intake of 60 and later the intake was increased to 120 in the year 2011-2012which is approved by AICTE and affiliated to JNTUH Hyderabad. The Department was also sanctioned 2 M.Tech programs (Power Electronics from 2010-2011 with 18 intake and later the strength was increased to 24 in the year 2013-2014 and M.Tech Power Systems sanctioned in the year of 2014-15 with an intake of 24). The department is well

strengthened with 3 Ph.Ds and other experienced faculty to impart excellent education to the students taking into consideration the latest innovations and technology at the global level. The Faculty of the Department has the excellent academic record and most of the faculty presented, published papers in refereed journals. At-least six Faculty are registered their Ph D with the JNTU University and other. The department is also equipped with well-established labs for fulfilling not only the syllabus requirements prescribed by JNTUH but also upgraded for Research and Development activities in the department. The department is keen in academic exposure of the students to the latest domain trends by conducting a series of seminars, conferences, guest lectures, faculty development programs, industrial tours and visits with professional societies like IEEE, ISTE etc. In view of all these academic activities, the department was earlier accredited by NBA in the year 2008-09 for three years ie up to 2011.However the department has regained the NBA status in the year 2014-15 for two years with a provision to extend the accreditation for another one year ie., 2017-18.The department also has its own library with sufficient volumes of text book and journals. The average pass percentage of the EEE students are more than 80% for the last one decade which shows that the performance of the EEE students are extremely good in all aspects. Further the department has been received Rs.9, 15,026 by the AICTE under the MODROBS scheme. Our students are well placed in the reputed core companies like Wipro, RAMTECH, and other core Industries & Government Organizations. About 25 of our Alumni students are working in the abroad and about 50 students are studying PG in the various universities and colleges. The department has been continuously organizing the AAVISKAR program from the AY 2010-11 which includes the Project Expo, Guest lectures, and Paper presentations etc. The Department is maintaining the Computer Laboratory with 60 system having latest configurations and software like MATLAB, POWER SIM, SIMULINK, PSCAD.

Weakness

The admission system of JNTUH enables us to accommodate all categories of students from both cities and rural areas, so the department is facing big challenges to improve the English communication skills to the rural students. The department has

a bottle neck in arriving MOUs with the Industries to collaborate for having internship, practical experience and R&D activities to the students which is being constantly pursued to improve the present situation for the development of the students. The department faculty is in urgent need for their deputation to attend/participate in various technical conferences, seminars, symposia, paper presentations at different universities nationally and also internationally. The faculty including non-teaching staff need to be covered under the group health insurance scheme, so that the faculty and other members can be well motivated to discharge their duties very efficiently.

Opportunities:

The Management of the TKR college of Engineering and Technology are highly qualified personnel with strong desire and commitment to meet the Objectives of the Institution. The management is also echelon for achievement and the source of Inspiration. The main proximity of the Institution is in the city centre and availability of all sources including the 24X7 transport facility and medical facility. The institution is also located near and around the NAVARATNA Industries like DRDO, DLRL, RCI, BHEL, ECIL etc., all these Major and core Industries are very near to the college within the radius of 7km to 10km. Thus students are getting an opportunity to do their Internship in the above said Industries. They can also do their academic projects in the same Industries; this is the major opportunity to the students for their placement guidance, project guidance and also career guidance with the eminent Scientists from all the above Industries. The department is conducting the Seminars, workshops and guest lecturers with the senior persons, scientist and the Professors from the famous Academic Institutions like JNTUH Hyderabad, Osmania University, NIT-Warangal and IIT Hyderabad.

Challenges:

As the Department of EEE is accredited by the NBA-New Delhi, there is a need that the faculty should resort for research and Development in the field of Electrical engineering and try to get funds from the government of India through its different funding agencies. Since the department has accredited by NBA, there is big challenge to the faculty of our department to further improve the academic results by following exemplary Teaching Learning Process. The newly developed Teaching Learning

Process of the Department is ensuring a balance between a good learner and slow learner with special programs like Workshops, GATE pattern guest lectures, seminars and conduction of competitive exams with skill development programs.

Evaluative Report

Department of Mechanical Engineering

1. **Name of the department :** Mechanical Engineering

2. **Year of Establishment** : 2004

3. **Names of Programmes / Courses offered :** Mechanical Engg.,

S.No	Degree	Programme Name	Level (UG/PG)
1	B.Tech	Mechanical Engineering	UG
2	M.Tech	CAD-CAM	PG

4. **Names of Interdisciplinary courses and the departments/units involved :**

S.No	Name of the Course	Year	Name of the Department Involved
1	English	I	H&S
2	Mathematics I	I	H&S
3	Mathematical Methods	I	H&S
4	Engineering Physics	I	H&S
5	Engineering Chemistry	I	H&S
6	Computer Programming	I	CSE
7	Probability and Statistics	2-1	H&S
8	Environmental Studies	2-1	H&S
9	Electrical and Electronics Engineering	2-1	EEE/ECE
10	Mathematics-II	2-2	H&S
11	Managerial Economics and Financial Analysis	3-1	H&S
12	Disaster Management	3-2	MBA
13	Advanced Communication Skills Lab	3-2	H&S

5. **Annual/ semester/choice based credit system (programme wise) :** Semester Based Credit System

6. Participation of the department in the courses offered by other departments:

S.No.	Name of the Department	Courses
1	Electronics and Communication Engineering	Engineering Drawing
2	Electrical and Electronics Engineering	Engineering Drawing
3	Computer Science & Engineering	Engineering Drawing
4	Information Technology	Engineering Drawing
5	Electronics and Communication Engineering	Engineering Mechanics
6	Electrical and Electronics Engineering	Engineering Mechanics
7	Computer Science & Engineering	Engineering Mechanics
8	Information Technology	Engineering Mechanics
9	Electronics and Communication Engineering	Engineering Work Shop
10	Electrical and Electronics Engineering	Engineering Work Shop
11	Computer Science & Engineering	Engineering Work Shop
12	Information Technology	Engineering Work Shop
13	Electrical and Electronics Engineering	Fluid Mechanics and Hydraulic Machines

7. Courses in collaboration with other universities, industries, foreign institutions, etc. : Available

a) MoU with the SVS Hydraulics Pvt.Ltd.,

8. Details of courses/programmes discontinued (if any) with reasons: NA

9. Number of Teaching posts

Designation	Sanctioned	Filled
Professors	4	4
Associate Professors	8	8
Asst. Professors	31	31
Total	43	43

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

S.No.	Name of the Faculty	Designation	Qualification	Specialization	No'of Years Experience
	Dr.D.V. Ravi Shanker	Professor & Principal	Ph.D	Composite Materials	24
1	Dr. V. Prabhakar Rao	Professor & HOD	Ph.D	Thermal Engg.	43
2	M. Venkat Reddy	Professor	M.Tech	CAD / CAM	23
3	Dr. M. Varatha Vijayan	Professor	Ph.D	IC Engine	
4	A. Sudhakar Rao	Assoc. Prof.	M.E	Industrial Engg. & Management	43
5	K. Kishore Kumar	Assoc. Prof.	M.Tech	CAD/CAM	7
6	T. Dhanunjay singh	Assoc. Prof.	M.Tech	E.S	10
7	D. Vasantha	Assoc.Prof.	M.E	Industrial Engg. & Management	8
8	Ch. Tirumala Prasad	Assoc. Prof.	M.Tech	Industrial Engg. & Management	14
9	K. Naveena Latha	Assoc. Prof	M.Tech	Machine Design	8
10	D. Srinivas Rao	Assoc. Prof.	Ph.D	Energy Systems Engg.	7
11	A. Vidyaranya Sarma	Assoc. Prof.	M.Tech	Industrial Engg.	22
12	B. Phani Kumar	Asst. Prof.	M.Tech	CAD/CAM	2
13	G. Sai Krishna Prasad	Asst. Prof.	M.Tech	Advanced Design & Manufacturing	4
14	A. Kiran Kumar Yadav	Asst. Prof.	M.Tech	CAD/CAM	6
15	N. Surya	Asst. Prof.	M.Tech	CAD/CAM	6
16	N. Pavani Kumari	Asst. Prof.	M.Tech	CAD/CAM	5
17	D. Rushi Kumar Reddy	Asst. Prof.	M.Tech	Advanced manufacturing Systems	2
18	M. Nageswar Rao	Asst. Prof.	M.Tech	CAD/CAM	4
19	N. Yadagiri	Asst. Prof.	M.Tech	Production Engg.	2
20	P. Venkateshwar Reddy	Asst. Prof.	M.Tech	Engg. Design	2
21	M. Rajitha	Asst. Prof.	M.E	Thermal Engg.	2.5

22	S. Giribabu	Asst. Prof.	M.Tech	Machine Design	2
23	U. Nagamani	Asst. Prof.	M.Tech	CAD/CAM	1
24	D. Srinu	Asst. Prof.	M.Tech	Machine Design	2
25	Mr. Sathish Kumar	Asst. Prof.	M.Tech	CIM	1
26	Ch. Uma	Asst. Prof.	M.Tech	CAD/CAM	2
27	P. Koteshwara Rao	Asst. Prof.	M.Tech	CAD/CAM	16
28	P. Anudeep	Asst. Prof.	M.Tech	Machine Design	2
29	B. Govind	Asst. Prof.	M.Tech	Thermal Engg.	2
30	Geetha Pande	Asst. Prof.	M.S	Energy Technology	3.5
31	Y. Mahipal Reddy	Asst. Prof.	M.Tech	CAD/CAM	1
32	V.Mohan Nayak	Asst. Prof.	M.Tech	CAD/CAM	4
33	Rajkiran	Asst. Prof.	M.Tech	Machine Design	1
34	G. Umesh	Asst. Prof.	M.Tech	CAD/CAM	2
35	S. Surender Babu	Asst. Prof.	M.Tech	Design for manufacturing	2
36	V. Ishwarya Laxmi	Asst. Prof.	M.Tech	Materials Engg.	1
37	J. Chaitanya Kalyani	Asst. Prof.	M.Tech	Production Engg.	5
38	Naveen Kumar	Asst.Prof.	M.Tech	Thermal Power Engg.	0
39	Meerapur Pankaj Arvind	Asst Prof.	M.Tech	Thermal Power Engg.	0
40	Sharanu Kumar Mavor	Asst.Prof.	M.Tech	Thermal Power Engg.	0
41	Y.Govardhan Reddy	Asst Prof.	M.Tech	ADM	1
42	B. Bala Krishna	Asst Prof.	M.Tech	CAD/CAM	1
43	S. Surappa	Asst. Prof.	M.Tech	AMS	2

11. List of senior visiting faculty - NA

12. Percentage of lectures delivered and practical classes handled (programme wise)
   by temporary faculty : 5%

13. Student -Teacher Ratio (programme wise) : 1:15

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Designation	Sanctioned	Filled
Technical Staff	43	43
Administrative staff	**01**	**01**

15. **Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D. / MPhil/PG.**

(i) PhD : 3   **(ii)   PG   : 40**

16. **Number of faculty with ongoing projects from a) National b) International funding agencies and grants received   :   -NA-**

17. **Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and Total grants received   : NA**

18. **Research Centre / facility recognized by the University: NA**

Laboratory is constructed to carryout student/faculty research work.

19. **Publications: 32**

20. **Areas of consultancy and income generated:** -NA-

21. **Faculty as members in National/International/Editorial Boards   :   NIL**

22. **Student Projects:**

(e) Percentage of students who have done in-house projects including

Interdepartmental/ programme   : 95%

(f) Percentage of students placed for projects in organizations outside the institutions

i.e. in research laboratories/industry/other agencies   : 05%

23. **Awards/ Recognitions received by faculty and students**

S.No	Student	Awards	Year
1	Pavan Srikanth Mounika	Robo Zest (International robotics workshop series cum championship	January 2015

24. **List of eminent academicians and scientists/ visitors to the department -** NIL

25. **Seminars/ Conferences/Workshops organized & the source of funding –**NIL

26. Student profile programme/course wise:

Name of the Course / programme (refer question no. 4)	Applications Received	Selected	Enrolled		Pass percentage
			*M	*F	
2012-16	180	137	119	18	75%
2011-15	180	136	111	16	77.04%
2010-14	180	112	98	24	77.5%
2009-13	120	109	97	26	93.38%

27. Diversity of Students last four years

Academic Year	% of students from the same state	% of students from other States	% of students from abroad
2009-2013	95%	5%	0%
2010-2014	95%	5%	0%
2011-2015	95%	5%	0%
2012-2016	95%	5%	0%

28. How many students have cleared national and state competitive

Examinations such as NET, SLET, GATE, Civil services, Defense

services, etc.?

S.No.	Academic Year	No. of students Qualified in GATE
1	2016-17	4
2	2015-16	4
3	2014-15	5
4	2013-14	2

29. Details of Infrastructural facilities

S.No	Name of the infrastructural facility	Quantity/Details
a	Library	The department has a well-developed departmental library with more than 237 Volumes on about 70 Titles.
b	Internet for staff and students	Available ISP - Apollo Available Bandwidth - 100mbps
c	Number of Classrooms	9 UG classrooms (70 seats capacity)
	Classrooms with ICT facility	Available
d	Laboratories	There are totally 14 labs, CAD/CAM laboratory holding 30 systems. All the systems are loaded with the softwares necessary for to carry out the experiments mentioned in the curriculum. Lab manuals are available in all the laboratories.

30. Number of students receiving financial assistance from college, university, Government or other agencies:

S.No	Academic Year	No.of students
1	2013-2014	286
2	2014-2015	322
3	2015-2016	373
4	2016-2017	374

31. Details on student enrichment programmes (special lectures/workshops /seminar) with External experts:

➢ Seminars and guest lectures on emerging topics are conducted to enrich the knowledge of students.

➢ Workshops on different topics, related to the curriculum are arranged.

32. Teaching methods adopted to improve student learning:

➢ Traditional chalk and talk method alongside use of presentation slides.

➢ Active Learning

➢ Problem-based Learning

➢ Guest lectures on the courses in the curriculum are arranged regularly.

> ➤ Classes are arranged on the topics beyond the syllabus in curriculum.

33. Participation in Institutional Social Responsibility (ISR) and Extension activities (NSS-National Service Scheme) - Available-

34. SWOC analysis of the department and Future plans:

STRENGTHS

1) The department of mechanical engineering has required and excellent student-teacher ratio as per AICTE and JNTU norms.

2) The department is accredited by NBA during the year 2015 and extended again for one more term.

3) Department is equipped with twelve full-pledged laboratories with fully trained technical skilled staff.

4) Department has highly motivated, dynamic and talented staff with excellent academic record.

5) Most of the faculty presented and published papers in several journals. At-least 5 to 6 faculty are perusing the part time research programme leading to Ph.d, registering with other universities.

6) The teaching learning process in department is outcome based teaching learning process.

7) Department encourages the student activities and associations, under Institution of engineers, Indian Society for Technical education, Association of Mechanical engineers, to organize the cultural and technical events, which are helpful to students and teachers.

8) Excellent coordination with industry is being formed to encourage the placement.

9) Mechanical department organizes regularly, technical skill and CRT programms for skill development of students in coordination with traing and placement wing.

WEAKNESSES

1) Due to large number of Engineering Institutes, in and around, has a heavy impact of competition and mode of working.

2) Retention of qualified faculty has become a problem, due to competitiveness among the managements.

3) Weakness in industry linkage due to large number of private engineering colleges.

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4) State funding is nil, hence the cost incurred in initial cost and latter modernization has to be borne by management. This is again linked up with fee structure, which factor is under the control of state government.

5) Full pledged training program for fresh lecturers, who joined recently, could not be carried out.

OPPORTUNITIES

1) Management is readily accepting the changes as per change of technology with time, even with their difficulty..

2) Management has the public support and neighbor's support, in abundant, in developing the college to the highest altitudes

3) Good relations of management with industries people has helped the college to acquire skill development, management development and technology transfer.

4) Institute location has given more importance in selecting, this institution of study, by the student.

5) It is in the city limits and hence has the benefit of the public transport facilities.

6) The proximity of Defense labs and establishments at Kanchanbag, helped the students to carry out the live projects. The technology development at Defense research labs helping student to pave himself towards the research orientation.

7) The Factories and Govt Undertakings such as BHEL, HAL, Bharat Dynamics are in and around the college. This helped the student to choose the live projects and get benefitted.

8) Industry experienced faculty, as gust faculty, has filled the gap between the Institute and Industry

CHALLENGES

1) College must take and ready to take fresh staff (however with good educational background) in the ratio of experienced staff , due to fee limitations of fee structure as controlled by State govt. and restrictions of funds release by management.

2) Syllabus change by university for every two years.

3) Change of regulations for every two years, with the change of university administrative set up.

4) To cope up the standards and maintain them as it is accredited by the national

associations and organizations

5) To be ready and attain the changes in technology and teach students at the recent trends.

6) Local language problem, as students comes from Telugu medium, special coaching is done in English language

Evaluative Report

Department of Electronics & Communication Engineering

1. **Name of the department:** Electronics & Communication Engineering

2. **Year of Establishment   : 2002**

3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):UG-ECE**

4. **Names of Interdisciplinary courses and the departments/units involved :**

S.N	Name of the Course	Year	Name of the Department
1.	Mechanical Engineering	I	B.TECH (UG)
2.	Information Technology	I	B.TECH (UG)
3.	Electrical & Electronic Engineering	I	B.TECH (UG)
4.	Electrical & Electronic Engineering	II	B.TECH (UG)
5.	Information Technology	II	B.TECH (UG)
6.	Information Technology	III	B.TECH (UG)
7.	Science & Humanities	III	B.TECH (UG)
8.	Information Technology	IV	B.TECH (UG)

5. **Annual/ semester/choice based credit system (programme wise) :**

ACCORDING TO JNTUH

6. **Participation of the department in the courses offered by other department**

S.No.	Name of the Department	Courses
1.	Electrical & Electronic Engineering	B.TECH (UG)
2.	Computer Science & Engineering	B.TECH (UG)
3.	Electrical & Electronic Engineering	B.TECH (UG)
4.	Mechanical Engineering	B.TECH (UG)

7. **Courses in collaboration with other universities, industries, foreign Institutions, etc.: NA**

8. **Details of courses/programmes discontinued (if any) with reasons :**NA

9. **Number of Teaching posts**

Designation	Sanctioned	Filled
Professors	03	03
Associate Professors	08	08
Asst. Professors	48	48
Total	59	59

10. Faculty profile with name, qualification, designation, specialization.

S.No	Name	Qualification	Designation	Specialization	No. of years of Experience
1	Dr.D Nageshwar Rao	Ph.D	Professor	Vlsi	16
2	Dr.S.Selva Kumar Raja	Ph.D	Professor	Image Processing	25
3	Dr.P.Nallathai	Ph.D	Professor	Image Processing	14
4	J.Sunitha Kumari	M.E	Assoc. Prof	M.Tech(MRE)	15
5	P.Gayathri	M.TECH	Assoc. Prof	M.Tech (ES)	12
6	K.Padmaja Devi	M.TECH	Assoc. Prof	M.Tech(DSCE)	12
7	B.Swapna Rani	M.TECH	Assoc. Prof	M.Tech (DSCE)	12
8	P.Venkata Lavanya	M.TECH	Assoc. Prof	M.Tech (ES)	12
	K.Sudha Rani	M.TECH	Assoc. Prof	M.Tech (ES)	10
9	K.Rama Krishna	M.TECH	Assoc. Prof	M.Tech(VLSI SD)	11
10	K.Sukanya	M.TECH	Assoc. Prof	M.Tech (ES)	9
11	K.Joshna	M.TECH	Asst.Prof	M.Tech(VLSI SD)	7
12	G.Anitha Chowdary	M.TECH	Asst.Prof	M.Tech(VLSI SD)	8
13	A.Vikas	M.TECH	Asst.Prof	M.Tech(VLSI SD)	8
14	A.Theja	M.TECH	Asst.Prof	M.Tech(VLSI SD)	8
15	Y.Priyanka	M.TECH	Asst.Prof	M.Tech (ES)	7
16	B.Swapna	M.TECH	Asst.Prof	M.Tech (ES)	5
17	G.Venkata Subba Rao	M.TECH	Asst.Prof	M.Tech(VLSI SD)	4
18	K.Sateesh	M.TECH	Asst.Prof	M.Tech(VLSI SD)	4
19	S.Sai Sree Andal	M.TECH	Asst.Prof	M.Tech(VLSI SD)	4
20	P.Kalyani	M.TECH	Asst.Prof	M.Tech(VLSI SD)	8
21	M.Indira	M.TECH	Asst.Prof	M.Tech(VLSI SD)	4
22	M.Jhansi Rani	M.TECH	Asst.Prof	M.Tech (ES)	4
23	R.Sahithi	M.TECH	Asst.Prof	M.Tech(DECS)	4
24	L.Karunankitha	M.TECH	Asst.Prof	M.Tech(VLSI)	4
25	M.Satyanarayana	M.TECH	Asst.Prof	M.Tech(VLSI SD)	4
26	S.Shankaran	M.TECH	Asst.Prof	M.Tech(VLSI SD)	2
27	S.Vijay Kumar	M.TECH	Asst.Prof	M.Tech(ES)	3
28	M.Vijay Babu	M.TECH	Asst.Prof	M.Tech (VLSI & ES)	3
29	M.Chaiyanya	M.TECH	Asst.Prof	M.Tech(DECS)	6
30	Ch.Prathyusha	M.TECH	Asst.Prof	M.Tech(VLSI SD)	3
31	S.Balakrishna	M.TECH	Asst.Prof	M.Tech (ES)	2
32	M.Gnanesh Goud	M.TECH	Asst.Prof	M.Tech(SSP)	2
33	J.Sravanthi	M.TECH	Asst.Prof	M.Tech(VLSI SD)	7

34	S.Swathi	M.TECH	Asst.Prof	M.Tech (ECE)	3
35	A.Haritha	M.TECH	Asst.Prof	M.Tech (ES)	6
36	Ch.Divya	M.TECH	Asst.Prof	M.Tech (VLSI SD)	2
37	Y.Ashok Kumar	M.TECH	Asst.Prof	M.Tech(VLSI SD)	4
38	N.Naresh	M.TECH	Asst.Prof	M.Tech (CS)	4
39	M.Ashok	M.TECH	Asst.Prof	M.Tech(ECE)	2
40	P.Manga Rao	M.TECH	Asst.Prof	M.Tech (ECE)	2
41	E.Prabhakar	M.TECH	Asst.Prof	M.Tech (VLSI SD)	2
42	G.Mahesh	M.TECH	Asst.Prof	M.Tech (VLSI SD)	2
43	V.Anil Kumar	M.E	Asst.Prof	M.Tech (Communication Systems)	2
44	R.Narendar	M.TECH	Asst.Prof	M.Tech(VLSI & Embedded System)	3
45	T.V.Aruna	M.TECH	Asst.Prof	M.Tech (VLSI)	2
46	A.Lavanya	M.TECH	Asst.Prof	M.Tech(VLSI SD)	8
47	B.Purendar Reddy	M.TECH	Asst.Prof	M.Tech(DECS)	3
48	M.Jagruthi	M.TECH	Asst.Prof	M.Tech(VLSI SD)	2
49	A.Deepika	M.TECH	Asst.Prof	M.Tech(VLSI SD)	1.5
50	M.Sri Venkat Rami Reddy	M.TECH	Asst.Prof	M.Tech(VLSI SD)	6
51	K.Sandeep Kumar	M.TECH	Asst.Prof	M.Tech(DECS)	1.4
52	B.Jhansi Reddy	M.TECH	Asst.Prof	M.Tech(VLSI SD)	1.4
53	B.Manasa Reddy	M.TECH	Asst.Prof	M.Tech(VLSI SD)	1.4
54	V.Jhansi Reddy	M.TECH	Asst.Prof	M.Tech(VLSI SD)	1.4
55	R.Sindhu Reddy	M.TECH	Asst.Prof	M.Tech(VLSI SD)	1.4
56	H.Ravi Teja	M.TECH	Asst.Prof	M.Tech (ES & VLSI Design)	2.6
57	P.Gokul Sai Sree	M.TECH	Asst.Prof	M.Tech(DECS)	1.3
58	Kalpana Rns	M.TECH	Asst.Prof	M.Tech(VLSI SD)	7

11. List of senior visiting faculty:

S.No	Resource Person	Organization
1	Dr.Subhajit Roy	IIIT HYD
2	Dr.Hemalatha	O.U,HYD
3	Prof.ShyamSundar	O.U,HYD
4	Prof.P.Satish	CBIT, HYD
5	Dr.AmitAcharya	IIT,HYD
6	Dr. N.S.Murthy	NIT,Warangal
7	Dr.B.RajenderNaik	OU,HYD
8	Dr.K.Ragini	GNITS,HYD
9	Mr.Ranjith&Mr.Venu	Sahstra Micro Systems
10	Mr.HariPrasadNaik	OU Research Scholar

12. Percentage of lectures delivered and practical classes handled(programme wise) by temporary faculty   :NA

13. Student -Teacher Ratio (programme wise) : 1:15

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Designation	sanctioned	Filled
Technical Staff	05	05
Administrative staff	01	01

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D. / MPhil/PG.

(i) PhD : 3   (ii) PG   : 56

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received : 1,00,000 /- RECEIVED FROM TKRCET FOR DEVELOPMENT OF ELECTRONIC BOARDS.

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received :NA

18. Research Centre / facility recognized by the University   : NA

19. Publications   :30

20. Areas of consultancy and income generated   : NA

21. Faculty as members in National/International/Editorial Boards : 02

22. Student Projects:

    (g) Percentage of students who have done in-house projects including interdepartmental/ programme   : 70 %

    (h) Percentage of students placed for projects in organizations outside the institutions i.e. in research laboratories/industry/other agencies :30%

23. Awards/ Recognitions received by faculty and students

S.No	Student	Awards	Year
1	Bhavya, Akhilareedy	3rd Prize Awarded Byanveshana	2016
2	K.Srikanth Reddy,M.Mounika,Hasham	10,000amount Awarded By Jntuh	2015

24. List of eminent academicians and scientists/ visitors to the department

S.No	Resource Person	Organization	Academicians/ Scientists
1	Dr.Subhajit Roy	IIIT HYD	Academician
2	Dr.Hemalatha	O.U,HYD	Academician
3	Prof.ShyamSundar	O.U,HYD	Academician
4	Prof.P.Satish	CBIT, HYD	Academician
5	Dr.AmitAcharya	IIT,HYD	Academician
6	Dr. N.S.Murthy	NIT,Warangal	Academician
7	Dr.M.Chandrasekhar	BDL,HYD	Scientist
8	Dr.B.RajenderNaik	OU,HYD	Academician
9	Dr.K.Ragini	GNITS,HYD	Academician
10	Mr.Ranjith&Mr.Venu	Sahstra Micro Systems	Academician
11	Mr.HariPrasadNaik	OU Research Scholar	Academician
12	G.Kumara Swamy Rao	DLRL,Hyd	Scientist
13	Prof.R.Sundararajan	DRDL,Hyd	Scientist
14	Dr.A.KSarkar	DRDL,Hyd	Scientist
15	Sri N.Raj Kumar	DLRL,HYD	Scientist
16	ShriA.Prakash	DRDL,HYD	Scientist
17	Dr.S.Vatsel	DRDO	Scientist
18	ShriS.K.Roy	DRDL,HYD	Scientist

25. Seminars/ Conferences/Workshops organized & the source of funding

S.No.	Name	National	International	Year
1	Embedded Systems and Robotics	Workshops	---	2015-16
2	"Embedded systems and VLSI design	Workshops	---	2014-15
3	Research Awareness in "Advanced VLSI/ULSI Design "	Workshops	---	2014-15
4	Image Processing Using MATLAB	Workshops	---	2014-15
5	"Digital IC Design"	Workshops	---	2014-15
6	Workshop on "PCB Design"	Workshops	---	2014-15
7	Latest Advances in Electronics &Communication Systems"	Workshops	---	2014-15
8	"Digital IC Design"	Workshops	---	2013-14
9	Workshop on "PCB Design"	Workshops	---	2013-14

26. Student profile programme/course wise:

Name of the Course / programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
ECE	214	214	122	92	95.3
ECE	144	144	95	49	**82.06**
ECE	120	120	80	40	80.06
ECE	125	125	79	46	85.36

27. Diversity of Students last four years

Academic Year	% of students from the same state	% of students from other States	% of students from abroad
2009-2013	100 %	---	---
2010-2014	100%	---	---
2011-2015	100%	---	---
2012-2016	100%	---	---

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

S.No.	Academic Year	No. of students Qualified in GATE
1	2014-15	6
2	2015-16	8
3	2016-17	10

29. Details of Infrastructural facilities

Library No.Of Volumes : 472

Internet facilities for Staff &Students :YES

Class rooms with ICT facility: 1

Laboratories:12

30. Number of students receiving financial assistance from college, university, government or other agencies.

K.SrikanthReddy,M.Mounika,Hasham Granted 10,000/- By JNTUH For Mini Projects

31. Details on student enrichment programmes (special lectures/workshops /seminar) with external experts

➢ A 3-Day workshop on **"Embedded Systems and Robotics"** by "**Robogenesis**" was coordinated by our faculty S.Balakrishna&B.Purender Reddy conducted on 21st-23rd July,2016 at TKRCET.

➢ Ch.Naveen, G.SaiVamshi, A.Jyothirmai have participated in Line Follower event in **"ECHO-2016,A national level technical fest"** conducted by Dept. of ECE in TKREC on 21st& 22nd September,2016.

- K.Sushma, L.Madhu, G.Mounika has presented a working model on "Ultrasonic Spectacles and Wait belt Design for Blind Navigation" in **SRUJANA-16** a state level Project Exhibition cum Competition for Engineering students organized by **AkhilBharatiyaVidyarthiParishad(ABVP)** held on 3rd to 6th April 2016 at SreeChaitanya Engineering Colleges, Karimnagar.

- K.BhavanaSanthoshi, J.Harshitha,G.SriKiran has presented a working model on "Wireless Blackbox Using MEMS Accelerometer and GPS Tracking for Accidental Monitoring of Vehicles" in **SRUJANA-16** a state level Project Exhibition cum Competition for Engineering students organized by **AkhilBharatiyaVidyarthiParishad(ABVP)** held on 3rd to 6th April 2016 at SreeChaitanya Engineering Colleges, Karimnagar.

32. Teaching methods adopted to improve student learning

The faculty members of the institution are using the following modes of delivery of the courses for the attainment of POs.

1. Chalkand talk
2. Learningby doing
3. OHP/LCD
4. Internet
5. E-Tutorial
6. RolePlay
7. Models/Charts
8. GroupTasks
9. Q&A (Assignment)

The above mentioned 9 varieties of content delivery modes are used by the faculty members as per their discretion , the need of the situation and the type of the course involved, i.e. to be delivered. The University course curriculum comprises of 58 courses of basic engineering , sciences , humanities and laboratory courses along with an under graduation mini and main project work. The student acquires the degree by acquiring 200 credits which comprises of 40 credits from laboratories, 160 credits from all subjects and the remaining 16 credits from successful completion of mini and main project work. From this analogy the majority of the credits to be earned by the student by chalk and talk and the laboratories are carried out through learning by doing. The other 4th, 5th, 6th, 7th modes of delivery will be utilized to cover course beyond the curriculum by student from the infrastructure provided by the Institution. The group task, 8th mode of practice, is utilized to pursue the project work in group in under

graduate program. The mode of delivery number 9 (Q&A Assignment) is also practiced by the students as a part of acquiring most of the credits i.e. from the engineering subjects, sciences and humanities. The following chart depicts the strength of content delivery methods in teaching various subjects.

		Chalk and Talk	Learning by doing	OHP/ LCD	Internet	E-Tutorial	Role Play	Model And Chart	Group Tasks	Q&A (Assignment)
Professional Core										
		20%	60%					10%	10%	
1	Probability Theory & Stochastic Processes	5.5%								
2	Electronic Devices & Circuits									
3	Signals & Systems									
4	Electronic Circuits Analysis									
5	Pulse & Digital Circuits									
6	Switching Theory and Logic Design									
7	Electromagnetic Theory & Transmission lines									
8	Antennas & Wave propagation									
9	Analog Communications									
10	IC Applications									
11	Digital Communications									
12	Digital Signal Processing									
13	Microprocessors & Microcontroller									
14	VLSI Design									
15	Microwave Engineering									
16	Digital Image Processing									
17	Embedded Systems									
18	Cellular & Mobile Comm									
19	Radar Systems									
20	Digital Design through Verilog HDL									

% Of Course Covered

Method	%
Chalk and Talk	20%
Learning by doing	60%
OHP/	
Internet	
E-Tutorial	
Role Play	
Model And Chart	10%
Group	10%
Q&A (Assignment)	

■ % Of Course Covered

33. Participation in Institutional Social Responsibility (ISR) and Extension activities (NSS- National Service Scheme)

A fund raising camp was organized by the NSS unit to help a diploma student Mr. D.Omkar who was suffering from blood cancer. An amount of Rs. 69,000/- was collected from staff and students and was handed over to him on 8th Feb 2016.

ఆపదలో ఉన్నవారిని ఆదుకోవాలి: తీగల

బడంగ్‌పేట్, నమస్తే తెలంగాణ: ఆపదలో ఉన్న వారికి చేయుతనివ్వాల్సిన అవసరం ఉందని మహేశ్వరం నియోజకవర్గ ఎమ్మెల్యే తీగల కృష్ణారెడ్డి అన్నారు. మంగళవారం సరూర్‌నగర్ మండలం మీర్‌పేట్ గ్రామం లోని టీకేఆర్ కళాశాలలో చదువు తున్న ఓంకార్ అనే విద్యార్థికి బ్లడ్‌క్యాన్సర్ రావడంతో కళాశాల యాజ మాన్యం తీగల హరినాథ్‌రెడ్డి, తీగల అమర్‌నాథ్‌రెడ్డి ఎమ్మెల్యే తీగల కృష్ణా రెడ్డి చేతుల మీదుగా రూ.69,000 నగదును విద్యార్థి ఓంకార్ కుటుంబానికి అందజేశారు. ఈ సంద ర్భంగా ఎమ్మెల్యే మాట్లాడుతూ ప్రతిఒక్క రికి సేవాభావం ఉంటే సమాజంలో మార్పు

ఆర్థిక సాయం అందజేస్తున్న ఎమ్మెల్యే తీగల కృష్ణారెడ్డి

సాధ్యమవుతుందన్నారు. బ్లడ్‌క్యాన్సర్‌తో బాధప డుతున్న ఓంకార్ కుటుంబానికి టీకేఆర్ విద్యాసం స్థలు ఆర్థిక సాయంచేయడం అభినందనీయమ న్నారు. తెలంగాణ ప్రభుత్వం వైద్యం నిమిత్తం ఎంతోమందికి చేయూతనిస్తోందన్నారు.

On 14th Aug 2015 a plantation programme was conducted by NSS Unit TKRCET at Hasthinapuram.

On account of Swacch Bharath, a Swacchmeerpetprogramme was organized on 4th Sep 2015.

An amount of Rs.10,000/- was sent to Indian Association for the blind on account of International white cane day   on 14th Dec, 2015.

On 2nd Oct, 2015 the NSS volunteers participated in a progamme where Gandhi Jayanthi was promoted as khadhi day at Necklace road.

Gandhi Jayanthi promoted as Khadhi Day

On 7^th^Feb , 2016 the NSS volunteers participated in CANCER awareness walk was organised by Yashoda hospitals at INDOOR Stadium , L.B Nagar to Dilsuknagar.

2016-17

Digital India Programme Conducted by JNTUH on 20th September 2016.

On account of Swacch Bharath, a Swacch Meerpet programme was organized on 20th Sep 2016.

She Teams awareness programme on 23rd December 2016 conducted by Rachakonda She Teams staff.

University level NSS mega camp conducted by Sreyas Institute of Engineering & Technology sponsored by JNTUH from 26th to 31st March 2017.

A fund raising camp was organized by the NSS unit to help Mechanical Engineering student Mr. Hanumu who was suffering from blood clot in brain. An amount of Rs.34,000/-was collected from staff and students and was handed over to his parents on 4th March 2017.

Red Ribbon Club Orientation and Training Programme conducted by NSS JNTUH at Andhra MahilaSabha, Osmania University Hyderabad on 28th January, 2017.

NSS Programmeon"EyeCheckCamp" conducted by TKRCET in collaboration with Saberi on wheels on 27th December 2016.

34. SWOC analysis of the department and Future plans

Strength

Electronics & Communication Engineering Department was established in the academic year 2002-03with access to higher education, strong ethics, commitment to quality and outreach to society offering B.Tech ECE and M.Tech VLSI System Design. Our department has been accredited twice for the years 2008- 2011(3 years) and 2015-2018 (3 years).This is one of the core branches of a premier technical institute of the region with well-developed infrastructure. Department is supported by cooperative management team round the clock fulfilling the needs and creating resources towards the development

of the department.

Department is bagged by highly experienced faculty and efficient support staff members. A Steadily increasing research output by way of publicationsof the faculty members in the last four years has been commendable. The department maintains required teacher-student ratio, which makes it possible for teachers to successfully address individual need of the students. Faculties follow a well-defined procedure of Teaching-Learning process which helps in increasing student's outcome. ECE department is exclusively owned by separate library named departmental library which has got huge volumes of books covering all major fields of Electronics and Communication Engineering. Each year, volumes are added to the collection. The department subscribes to most of the major technical journals and magazines including IEEE. The library has separate collection of reference books, NPTEL lectures which helps in enhancing as well as upgrading the skills of faculties. Department organizes various technical events to enhance students throughout more towards the technical aspects with multiple programmes,guest lectures and industrial visits. Department organizes every year a national level technical symposium named Electronics and Communications Technical Association(ECTA) it enjoys very good patronage from students of various colleges not only in the city also from various parts of the district.

ECE Department has a good outreach in getting good quality of students, as the college has got positive social image in the nearby localities. This department has a lot of scope in various fields after graduation like designing or developing research based projects or can also pursue higher studies. Students of our department has really got great opportunity to utilize and enhance their technical skills by involving themselves in industry oriented projects as our institution is surrounded by many Defence Laboratories like DRDO, RCI, ANURAG,ASTRA Microwave, ECIL. We have strong presence of Alumni in industry as well as Entrepreneur. Department adopts Effective measures in monitoring students by conducting Counseling and Remedial class also by allotting Class In charges governed by Supervisors in turn by Head of The Department. CRT classes are conducted to improve student's personality, analytical and professional skills of the student's .Department also collects feedback from students to improve programme outcomes of the graduates.

Weakness

The College is affiliated to the JNTUH University gets admission through EAMCET which enables us to accommodate all categories of students both from urban and rural areas, so department is facing challenges in improving students' self-belief, forethought, self-esteem and self-efficacy. Department also finds a large gap in communication skills as students hail mainly from rural background with lack of communication skills.

As since college is affiliated to JNTUH University department needs to follow University curriculum hence finds no scope of designing the required curriculum. We do face problem from students by not attending the classes regularly in spite of our strict vigilance, monitoring system and control measures. This has been overcome by the establishment if biometric attendance system from February 2017 onwards.

Opportunities

As the college is located in the city and has positive image in the nearby localities, department has got long standing skilled and dedicated staff working for more than a decade which improves the quality of graduate outcomes in turn improves the college reputation. Department is backed by well-equipped laboratories, class rooms and good infrastructure that helps students to upgrade their technical and analytical skills. College situated nearer to defence laboratories helps students of the department to do internship also to carry out their mini and major projects. Students of this college has an opportunity to appear in MNC's through On-Campus or Off-Campus as most of the companies are situated in and around the campus and more employable.

Challenges

Because of more number of Engineering Colleges, quality of intake is poor. Bridging the gap between course content and industry needs, Uncertainties in industry manpower requirements and recession which reduces the placement opportunities, employability of the students are the biggest challenge. Rapid changes in technology and time bound Learning & Training skills for the faculty.

Evaluative Report
Department of Computer Science & Engineering

1. **Name of the department**: Computer Science & Engineering

2. **Year of Establishment**: 2002

3. **Names of Programmes / Courses offered**

S.No	Degree	Programme Name	Level (UG/PG)
1	B.Tech	Computer Science & Engineering	UG
2	M.Tech	Computer Science & Engineering	PG
3	M.Tech	Software Engineering	PG

4. **Names of Interdisciplinary courses and the departments/units involved :**

S.NO	Name of the Course	Year	Name of the Department Involved
1	English	I	H&S
2	Mathematics I	I	H&S
3	Mathematical Methods	I	H&S
4	Engineering Physics	I	H&S
5	Engineering Chemistry	I	H&S
6	Engineering Drawing	I	Mechanical
7	Probability and Statistics	2-1	H&S
8	Mathematical Foundations and Computer Science	2-1	H&S
9	Electronic Devices and Circuits	2-1	ECE
10	Basic Electrical Engineering	2-1	EEE
11	Environmental Studies	2-2	H&S
12	Managerial Economics and Financial Analysis	3-2	H&S
12	Advanced Communication Skills Lab	3-2	H&S
13	Management Science	4-1	H&S

5. **Courses in collaboration with other universities, industries, foreign institutions, etc**. : NIL

6. **Details of courses/programmes discontinued (if any) with** reasons   : NIL

7. Number of Teaching posts

Designation	Sanctioned	Filled
Professors	5	5
Associate Professors	4	4
Asst. Professors	53	53
Total	62	62

8. Annual/ semester/choice based credit system (programme wise) :

Semester Based Credit System

9. Participation of the department in the courses offered by other departments:

S.No	Name of the Department	Courses
1	Electronics and Communication Engineering	Computer Programming in C
2	Electrical and Electronics Engineering	Computer Programming in C
3	Mechanical Engineering	Computer Programming in C
4	Civil Engineering	Computer Programming in C
5	Master of Business Applications	Statistical Data Analysis

10. Faculty profile with name, qualification, designation, specialization,

Name	Qualification	Designation	Specialization	No. of Years of Experience
DR.A.SURESH RAO	Ph.D	Professor	CSE	16
Dr. S SOMARAJU	Ph.D	Professor	CSE	6
Dr. V SREENIVAS	Ph.D	Professor	CSE	10
Dr. K V PRASAD	Ph.D	Professor	CSE	12
Dr. A RAMACHANDRA REDDY	Ph.D	Professor	CSE	13
K RAMESH	M.Tech.(Ph.D)	Assoc. Prof.	CSE	5
CH. RAVI	M.Tech.(Ph.D)	Assoc. Prof.	CSE	10
K SRINIVAS BABU	M.Tech.(Ph.D)	Assoc. Prof.	CSE	10
P VENKATA KISHAN RAO	M.Tech.	Assoc. Prof.	CSE	10
R. DILEEP KUMAR	M.Tech.	Asst. Prof.	SE	6
B.RANJITHA	M.Tech.	Asst. Prof.	CSE	6
A. SANDHYA RANI	M.Tech.	Asst. Prof.	CSE	6
B JAYALAKSHMI	M.Tech.	Asst. Prof.	CSE	6

G VENKATRAM REDDY	M.Tech.	Asst. Prof.	SE	2
A. PRAMOD REDDY	M.Tech.(Ph.D)	Asst. Prof.	CSE	5
P. MAHESH KUMAR	M.Tech.(Ph.D)	Asst. Prof.	CSE	5
K.SHIRISHA REDDY	M.Tech.	Asst. Prof.	CSE	2.6
K INDRA KIRAN REDDY	M.Tech.	Asst. Prof.	SE	2
M NAVEEN KUMAR	M.Tech.	Asst. Prof.	CSE	6
G. DEEPTHI	M.Tech.	Asst. Prof.	CSE	3
R.PRATHYUSHA	M.Tech.	Asst. Prof.	WT	2.5
T.SHASHI KUMAR	M.Tech.	Asst. Prof.	CSE	3
P KEERTHI	M.Tech.	Asst. Prof.	CS	2.4
B SAI PRASAD	M.Tech.	Asst. Prof.	CSE	2.4
K.SHIVA SHANKARGOUD	M.Tech.	Asst. Prof.	CSE	2
R RAMESH	M.Tech.	Asst. Prof.	CSE	2
P CHANDRASHEKAR	M.Tech.	Asst. Prof.	SE	2
V RAMESH	M.Tech.	Asst. Prof.	CSE	4
T MADHU	M.Tech.	Asst. Prof.	CSE	4
B VASAVI SRAVANTHI	M.Tech.	Asst. Prof.	CN&IS	4.4
M THANMAYEE	M.Tech.	Asst. Prof.	SE	3.2
CH JYOTHI	M.Tech.	Asst. Prof.	CSE	2
P BHAVANI	M.Tech.	Asst.Prof.	CSE	1.3
R SAYI RAM	M.Tech.	Asst. Prof.	CSE	1.7
KALAM BASHA	M.Tech.	Asst. Prof.	CSE	2
CHINDAM SANDHYA	M.Tech.	Asst. Prof.	CSE	1.9
T PHANI RAJ KUMAR	M.Tech.	Asst. Prof.	CSE	4.8
HEBBATAM SOWJANYA	M.Tech.	Asst. Prof.	CSE	2
D RAVI KISHORE	M.Tech.	Asst. Prof.	CSE	2
Y. LATHA	M.Tech.	Asst. Prof.	CSE	1.7
M RATNA SHIRISHA	M.Tech.	Asst. Prof.	SE	2
V PRAGATHI	M.Tech.	Asst. Prof.	CS	1
U RAGHAVENDRA SWAMY	M.Tech.	Asst. Prof.	CSE	4.7
E AMARNATH GOUD	M.Tech.	Asst. Prof.	CSE	1.7
D LAXMI PRASANNA	M.Tech.	Asst. Prof.	CSE	0.9

P UMA MAHESHWARI	M.Tech.	Asst. Prof.	SE	1.6
M SUSHMA	M.Tech.	Asst. Prof.	CSE	0.6
P LAXMI PRASANNA	M.Tech.	Asst. Prof.	CSE	0.6
S REVATHI	M.Tech.	Asst. Prof.	IT	5.6
CH PRATHYUSHA	M.Tech.	Asst. Prof.	SE	0.6
M POOJA	M.Tech.	Asst. Prof.	CSE	4
S SUKANYA	M.Tech.	Asst. Prof.	CSE	0.4
SANGALA SOWJANYA	M.Tech.	Asst. Prof.	CSE	0.6
B NARESH	M.Tech.	Asst. Prof.	CSE	1
SAI SUDHA BUDDULA	M.Tech.	Asst. Prof.	CSE	0.4
G.ARPITHA	M.Tech.	Asst. Prof.	CSE	1.3
B NAGAJYOTHI	M.Tech.	Asst. Prof.	CSE	1
JELLA MAHESH	M.Tech.	Asst. Prof.	CS	1.5
PALAPU LAKSHMI	M.Tech.	Asst. Prof.	CSE	0.4
P SWETHA	M.TECH.	Asst. Prof.	CSE	0.6
REDDY MANASA	M.TECH.	Asst. Prof.	SE	0.3
NAKKA PADMAVATHI	M.TECH.	Asst. Prof.	CSE	2

11. **List of senior visiting faculty**: NIL

12. **Percentage of lectures delivered and practical classes handled(program Wise) by temporary faculty** : 0%

13. **Student -Teacher Ratio (programme wise)** : 1:15

14. **Number of academic support staff (technical) and administrative staff; sanctioned and filled**

Designation	Sanctioned	Filled
Technical Staff	07	07
Administrative	03	03

15. **Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D. / MPhil/PG.**

    (i) PhD : 5   (ii)   PG   : 57

16. **Number of faculty with ongoing projects from a) National b) International funding   agencies and grants received**   : -NIL-

17. **Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received**   : -NIL-

18. Research Centre / facility recognized by the University : One research

Laboratory is constructed to carryout student/faculty research work.

19. Publications: 143

20. Areas of consultancy and income generated : -NA-

21. Faculty as members in National/International/Editorial Boards : NIL

22. Student Projects:

(i) Percentage of students who have done in-house projects including

Inter departmental/ programme : 95%

(j) Percentage of students placed for projects in organizations outside the institutions

i.e. in research laboratories/industry/other agencies : 05%

23. Awards/ Recognitions received by faculty and students

S.No	Student	Awards	Year
1	T.S.Sai Kumar	Smar Quill	2014
2	A.Vishnavi	Smar Quill	2014
3	Shaik Hafeezuddin	TKRCET WEBSITE DESIGN	2014
4	J. Abhishek	CoLLOQUIUM	2014
5	J. Vamshi Raj	CoLLOQUIUM	2014
6	M. Nithin Kumar	CoLLOQUIUM	2014
7	M.Vishnu Varma	CoLLOQUIUM	2014
8	M. Puneeth Bhardwaj	CoLLOQUIUM	2014
9	B. Sai Baba	Outlook Magazine	2015
10	M. Rehana	Codes & Greeks	2015
11	M. Rehana	C-Quiz	2015
12	M. Rehana	Quiz	2015
13	B. Sai Baba	Think India Transform	2016
14	B. Sai Baba	Elocution	2016
15	B. Sai Baba	Think India Transform	2016
16	S. Sandeep Reddy	Samavarathan-2016	2016
17	S. Sandeep Reddy	Advitiya-2016	2016
18	B. Sai Baba	Group discussion	2016
19	B. Sai Baba	Debate	2016
20	B. Sai Baba	JAM	2016
21	B. Sai Baba	Debate competition	2016
22	B. Sai Baba	Mock interview	2016

24. Student profile programme/course wise:

Name of the Course / programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
2012	180	174	102	72	79%
2011	120	118	75	43	89%
2010	120	118	76	42	93%
2009	120	104	66	38	97%

25. Seminars/ Conferences/Workshops organized & the source of funding

S.No.	Name	National	International	Year
1	Latest Trends in NETWORKING & SECURITY TECHNOLOGIES	√		2016
2	INTERNET OF THINGS	√		2016
3	INTRODUCTION TO DATA ANALYTICS USING R PROGRAMMING	√		2016
4	DATABASE SECURITY	√		2016
5	MACHINE LEARNING RECENT TRENDS & APPLICATIONS	√		2016
6	CYBER SECURITY AND CLOUD COMPUTING - THREAT LANDSCAPE AND PRODUCTION OF INFORMATION INFRASTRUCTURE	√		2015
7	DATA ANALYTICS IN INDORE LOCATION INTELLIGENCE	√		2015
8	DIGITAL ENTERPRISE ATRCHITECTURE	√		2015
9	Flow with React JS	√		2015
10	KNOWLEDGE REPRESENTATION: ROUGH SET APPROACH	√		2014
11	Stochastic Modeling and its Applications	√		2014
12	Promoting Active learning and student-centered Pedagogy	√		2014
13	Mule ESB - Cloud and API led connectivity	√		2014
14	Ethical Hacking And Counter Measures in Real World Web Applications	√		2013
15	Software Product Reliability Assessment and Its Usefulness	√		2013

26. Diversity of Students last four years

Academic Year	% of students from the same state	% of students from other States	% of students from abroad
2009-2013	95%	5%	0%
2010-2014	95%	5%	0%
2011-2015	95%	5%	0%
2012-2016	95%	5%	0%

27. How many students have cleared national and state competitive Examinations like NET, SLET, GATE, Civil services, Defense services etc

S.No.	Academic Year	No. of students Qualified in GATE
1	2016-17	5
2	2015-16	4
3	2014-15	2
4	2013-14	2

28. Details of Infrastructural facilities

S.No	Name of the infrastructural facility	Quantity/Details
a	Library	The department has a well-developed departmental library with more than 1000 Volumes on about 80 Titles.
b	Internet for staff and students	Available ISP - Apollo Available Bandwidth - 100mbps
c	Number of Classrooms	16 UG classrooms (70 seats capacity) 3 PG classrooms
	Classrooms with ICT facility	Available
d	Laboratories	There are totally 14 labs with each laboratory holding at least 30 systems. All the systems are loaded with the softwares necessary for to carry out the experiments mentioned in the curriculum. Lab manuals are available in all the laboratories.

29. Number of students receiving financial assistance from college, university, Government or other agencies : -

	Academic Year	B.Tech	M.Tech CSE	M.Tech SE
1	2013-2014	333	23	19
2	2014-2015	376	22	19
3	2015-2016	449	19	8
4	2016-2017	491	9	6

30. Details on student enrichment programmes (special lectures/workshops /seminar) external experts:

- ➤ Seminars and guest lectures on emerging topics are conducted to enrich the knowledge of students.
- ➤ Workshops on different topics, related to the curriculum are arranged.

31. Teaching methods adopted to improve student learning:

- ➤ Traditional chalk and talk method alongside use of presentation slides.
- ➤ Active Learning
- ➤ Problem-based Learning
- ➤ Guest lectures on the courses in the curriculum are arranged regularly.
- ➤ Classes are arranged on the topics beyond the syllabus in curriculum.

32. Participation in Institutional Social Responsibility (ISR) and Extension activities (NSS-National Service Scheme) - NA-

33. SWOC analysis of the department:

SWOC ANALYSIS

STRENGTH

Computer Science and Engineering was started in the year 2002 and presently the department offering one UG program and two PG programs. The UG program started in the year 2002 with an intake of 60 and subsequently the intake is increased to 90 in the year 2008, 120 in 2009, 180 in 2012 and 240 in 2013 (AICTE Approval No: F.No.SOUTH-CENTRAL/1-1454828102/2013/EOA, Dt. 19-03-2013). The first PG program (M.Tech in Computer Science and Engineering) started in 2008 with an intake of 18 and is increased to 24 in 2012. The second PG program (M.Tech in Software Engineering) started in 2011 with an intake of 18. The department has well equipped laboratories and continuously improving the facilities in the laboratory to

cope with the modifications made by the JNTUH. For the academic year 2017-18 JNTUH introduced new laboratory named Computer Organization Lab to CSE branch, so we established a new Computer Organization Laboratory recently. Department has also internet and Wi-Fi facilities. The faculty of the department are well qualified and experienced and the department is maintaining 1:15 ratio of faculty for the past 3 years and we focus on improving the teaching learning process. Department has four faculty holding Ph.D degrees, one faculty submitted his thesis and four more faculty are pursuing their PhD course. The pass percentage of the students is above 80% for the past three years. Our department was accredited by NBA twice, once in 2008 for three years and in 2015 for two years initially and later it is extended for one more year.

As our institute is located within the radius of Hyderabad, our students are getting more exposure in latest technologies and trends in Computer Science field by interacting with the government industries like DRDL, DRDO, BDL, ECIL, BHEL, NRSA and multinational software companies like, INFOSYS, TCS, IBM, DELLOITDE, COGNOZINAT, AMAZON, INFOTECH, TECHMAHNDRA, MICROSOFT, etc, which are located in Hyderabad. Our institute is well connected to both road and air ways, the companies don't feel any inconvenience to come and conduct the campus interviews for the students, and this is the one reason our department students are getting more companies in campus placements. Our department has also conducted technical skill and Campus Recruitment Training programs in coordination with training and placement cell. The percentage of students placed in campus interviews is increasing year to year, in 12+ companies are visited in 2015-16 and 25+ companies visited in 2016-17 including AMAZON, IBM, ZENSAR TECHNOLOGIES, V. L. INFOTECHNOLOGIES, ASPIRES SYS. INDIA P.LTD , etc.. Our institution has been awarded "BEST IN PLACEMENTS" by "WORLD HRD CONGRESS" in the year 2017. Our students are getting good training from the institute and also from the reputed institutes outside the institute for various competitive exams, as a result a significant number of students are qualifying in GATE and other competitive exams. For the past four years at least 10% of the students are pursuing higher education in national and international institutes. Department encourages student activities and associations and 30% of the students are

participating in the competitions conducted by various organizations. Two teams participated in SMART INDIA HACKTHON-17 competition conducted by ministry of NCPCR and one team has been shortlisted to participate in final round in BHOPAL.

WEAKNESS

Because of huge number of private colleges in the state and the admission system of JNTUH enables us to get the students from both cities and rural areas, so the department facing huge challenges in improving the English communication skills to the rural students. Hence a separate course established for improving the rural students communication skills. State funding to the institute is nil and hence the cost incurred in initial cost and later modernization has to borne by management. This again linked up with fee structure, and is under the control of state government. Due to the large number of institutes in the state the retention of quality faculty has become a problem, and not many training programs are conducted to freshly joined lectures. The department has to increase the amount of research activities and there is always requirement of research infrastructure in selected areas. The number of PhD holders are less, however most of the faculty are pursing PhD in part time mode in different universities.

OPPORTUNITIES

The institute has well equipped auditorium, library and e-classrooms with both audio and visual facilities provided. The institute is conducting more campus drives and Campus Recruitment and Training programs to prepare the students to perform well in interviews conducted by various companies inside the campus and also outside the campus. The ideology of the management helps the institute to move forward to another level. The institute giving importance to non-academic activities as a result we have a separate play area for cricket with stadium, indoor stadium, gymnasium, etc., for both girls and boys. About Two-Thirds of students are prefer to come to college by public transport, since institute is situated in the city limits. Even though, institute is providing transport for students who prefer to come by college buses.

CHALLENGES

Due to the limitation of fee structure as it is controlled by the state government, it is the challenge for the institute to attract experienced, quality faculty, maintaining healthy balance between teaching and research and improving the quality of publications. Institute has to create or modify its infrastructure as JNTUH changes the syllabus, regulations for every two years. Department has to increase its research infrastructure in the thrust areas identified by it, and must organize state/.national level conferences, paper presentations and project competitions. Preparing our students as Entrepreneurs and professionals for the global market.

Evaluative Report

Department of   Information Technology

1. **Name of the department** :   Information Technology

2. **Year of Establishment**   : 2006

3. **Names of Programmes / Courses offered**: UG

S.No	Name of the Course	Year	Name of the Department Involved
1	Computer Programming	I-Year	Electronics & Communication Engg.
2	Computer Organization & Operating System	III-I Year	Electronics & Communication Engg.
3	Computer Networks	IV-I	Electronics & Communication Engg.

4. **Names of Interdisciplinary courses and the departments/units involved**:

5. **Annual/ semester/choice based credit system (programme wise): Semester**

6. **Participation of the department in the courses offered by other departments**: ECE

S.No.	Name of the Department	Courses
1	Science & Humanities	English
2	Science & Humanities	Mathematics-I
3	Science & Humanities	Mathematical Methods
4	Science & Humanities	Engineering Physics
5	Science & Humanities	Engineering Chemistry
6	Science & Humanities	Engg. Drawing
7	Science & Humanities	Engineering Chemistry& Engineering Physics Lab
8	Science & Humanities	English Language Communication Skills Lab
9	Science & Humanities	Probability & Satistics
10	Science & Humanities	Mamathematical Fundations of Computer Science
11	Electrical & Electronics Engg.	Basic Electrical & Engg
12	Electronics & Communication Engg.	Eclectronics Devices & Cicuits
13	Electronics & Communication Engg.	Electrical & Electronics Lab
14	Science & Humanities	Environmental Studies

15	Science & Humanities	Managerial Economics & Financial Analysis
16	Science & Humanities	Advance Communication Skills Lab
17	Science & Humanities	Management Science

7. Courses in collaboration with other universities, industries, foreign institutions, etc.: NO

8. Details of courses/programmes discontinued (if any) with reasons : NO

9. Number of Teaching posts

Designation	Sanctioned	Filled
Professors	01	01
Associate Professors	04	04
Asst. Professors	09	09
Total	14	14

10. Faculty profile with name, qualification, designation, specialization,

Name	Qualification	Designation	Specialization	No. of Years of Experience
Dr. K.M.V Madan Kumar	Ph.D	Professor	CSE	15 Years
V.Ravi Kumar	M.Tech (Ph.D)	Assoc.Prof.	CSE	12 Years
U.Aswani Kumar	M.Tech (Ph.D)	Assoc.Prof.	CSE	11 Years
M.Aruna	M.Tech (Ph.D)	Assoc.Prof.	SE	12 Years
C.Jaya Lakshmi	M.Tech	Assoc.Prof.	CSE	9.8Years
D. Kavitha	M.Tech	Asst.Prof.	CSE	6 Years
J.Jyotsna	M.Tech	Asst.Prof.	SE	9.5 Years
K.Naresh	M.Tech	Asst.Prof.	SE	7.8 Years
G.Avinash Reddy	M.Tech	Asst.Prof.	CSE	5 Years
B.Shivani	M.Tech	Asst.Prof.	CSE	4.5 Years
T.Radhika	M.Tech	Asst.Prof.	CSE	4.8 Years
T.Madhumathi	M.Tech	Asst.Prof.	CSE	4.5 Years
E. Radhika	M.Tech	Asst.Prof.	SE	6 months
M Balakrishna	M.Tech	Asst.Prof.	SE	2 Years

11. List of senior visiting faculty:

S.No	Faculty Name	Designation	Visiting Faculty address
1	Dr. Bal Raju	Professor	KITE, GHATKESAR , HYD.
2	Dr. G. Kiran	Professor	MLRIT, DUNDIGAL, RR DIST

	Kumar		
3	Dr.Nagesh	Professor	MGIT, GANDIPET, RR DIST

12. Percentage of lectures delivered and practical classes handled (programmewise) by temporary faculty : NO

13. Student -Teacher Ratio (programme wise) : 1:15 RATIO

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Designation	sanctioned	Filled
Technical Staff	01	01
Administrative staff	01	01

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D. / MPhil/PG.

  (i) PhD : 01   (ii)PG:13

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received : NIL

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received : Others, Total Grants Received 85000/-

S.No	Hall Ticket	Student Name	Project Name	Company Name
1	10K91A1211	Ch. Varun	College Enterprise Resource	Mavin Technologies
2	10K91A1215	Dussa Divyavani	College enterprise Resource Planning	Mavin Technologies
3	10K91A1216	Embadi Thirupathi	College enterprise Resource Planning	Mavin Technologies
4	10K91A1221	G Chandrasekhar Rao	College enterprise Resource Planning	Mavin Technologies
5	10K91A1223	K Kalyan Sandeep	College enterprise Resource Planning	Mavin Technologies
6	10K91A1231	M Saikiran Reddy	College enterprise Resource Planning	Mavin Technologies
7	10K91A1233	M. Sai Ravi Teja	College enterprise Resource Planning	Mavin Technologies
8	10K91A1237	Nellikanti Yeshwanth	College enterprise Resource Planning	Mavin Technologies

9	10K91A1241	P Sumanth	College enterprise Resource Planning	Mavin Technologies
10	10K91A1247	Pradeep Kumar. U	College Enterprise Resource Planning	Mavin Technologies

18. Research Centre / facility recognized by the University : NIL

19. Publications : 24

20. Areas of consultancy and income generated : 85000/-, Software Development

21. Faculty as members in National/International/Editorial Boards : NIL

22. Student Projects:

   (k) Percentage of students who have done in-house projects including

      Interdepartmental/ programme : **50%**

   (l) Percentage of students placed for projects in organizations outside the institutions

      i.e. in research laboratories/industry/other agencies : **50%**

23. Awards/ Recognitions received by faculty and students

S.No	Student	Awards	Year
1	Praneeth	LANGAMING	2016
2	Praneeth	Quiz Champ	2016
3	Vamshi	LANGAMING	2016
4	Vamshi	Quiz Champ	2016
5	M Supriya	Written Test	2014

24. List of eminent academicians and scientists/ visitors to the department

S.No.	Name	Designation
1	Dr V. Purnachander Rao	Professor, JNTUH
2	K. Nagi Reddy	Senior Project Manager, Infosys

25. Seminars/ Conferences/Workshops organized & the source of funding

S.No.	Name	National	International	Year
1	Internet Of Things	√	-	2016
2	Introduction to data analytics using R programming	√	-	2016
3	Database Security	√	-	2016
4	Machine learning recent trends and application	√	-	2016
5	Work Shop on Mobile app	√	-	2015

6	Internet Of Things	√	-	2015
7	Cloud Computing	√	-	2015
8	How to Test Software	√	-	2015
9	National Level workshop on Network Simulators	√	-	2014
10	Animation and game Designing	√	-	2013
11	Faculty development program in teaching pedagogy	√	-	2013
12	One day workshop on Ethical Hacking	√	-	2013
13	A one day talk on IBM Technologies in Applications	√	-	2013
14	A One day Seminar Carrer oppurtunites in IBM	√	-	2013
15	A One day Workshop on Desingning and Application on Black Berry	√	-	2012

26. Student profile programme/course wise:

Name of the Course / programme	Applications Received	Selected	Enrolled *M	*F	Pass percentage
UG 2016	60	58	34	24	87.01
UG 2015	60	54	27	27	82.96
UG 2014	60	60	29	31	84.41
UG 2013	60	51	27	24	92.22

27. Diversity of Students last four years

Academic Year	% of students from the same state	% of students from other States	% of students from abroad
2009-2013	100%	00	00
2010-2014	100%	00	00
2011-2015	100%	00	00
2012-2016	100%	00	00

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense   services,etc.?

S.No.	Academic Year	No. of students Qualified in GATE
Nill	Nill	Nill

29. Details of Infrastructural facilities Library No. Of Volumes : 3332

Internet facilities for Staff & Students: 60

Class rooms with ICT facility: 01

Laboratories: 03

30. Number of students receiving financial assistance from college, university, Government or other agencies

31. Details on student enrichment programmes (special lectures/workshops /seminar) with external Experts

32. Teaching methods adopted to improve student learning :

By Conducting Tutorials

➢ Active Learning

➢ Problem-based Learning

➢ Analytical and Creative thinking

➢ Generating Questions and Summarizing

33. Participation in Institutional Social Responsibility (ISR) and Extension activities (NSS- National Service Scheme)

➢ Participated in Haritha Haram

➢ Swacch Bharath

34. SWOC analysis of the department and Future plans

STRENGTHS:

1. The department of IT has excellent student- teacher ratio as per AICTE & JNTU norms

2. Department organizes conferences, workshops & short term courses for knowledge uplift of Faculties and Students.

3. IT Department organizes regular, CRT Programs and technical skill for development of students in coordination with training & placement wing.

4. Department has good number of Placement record.

5. Most of the faculty members presented & published paper at several reputed National & International conferences and journals.

6. Employment opportunities for students are providing through on campus & off campus placement.

7. Highly Qualified Faculty & great Lab facilities.

.**WEAKNESS:**

1. Requirement of advanced training programs.

2. Number of Ph.D. holders are less, however most of the faculty are pursuing Ph.D part time in different universities.

3. There is a requirement of Digital Classroom

4. There is always a requirement of research infrastructure in selected areas.

OPPORTUNITIES:

1. Management has the public support and neighbor's support, in abundant, in developing the college to the highest altitudes

2. Good relations of management with industries people has helped the college to acquire skill development, management development and technology transfer.

3. Management is ready to accept the changes as per change of technology.

4. Faculty members deputed for specialized training programs.

CHALLENGES:

1. The Department is working in-line to attain NBA.

2. Change of regulation for every 2 years, with the change of University administrative set up.

3. We update the teaching learning process according to the JNTU Regulations.

4. Improving quality of publications.

5. Improving Quality of Teaching Methodologies

Evaluative Report

Department of MBA

1. **Name of the department** : MBA

2. **Year of Establishment: 2006**

3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D.,**

   Integrated Masters; Integrated Ph.D., etc.): PG

4. **Names of Interdisciplinary courses and the departments/units involved** :

S.No	Name of the Course	Year	Name of the Department Involved
1	Management	I	Department of MBA

5. **Annual/ semester/choice based credit system (programme wise)** : Semester

6. **Participation of the department in the courses offered by other departments:**

S.No.	Name of the Department	Courses
1	ECE	MEFA
2	CSE	MEFA
3	CSE	MEFA

7. **Courses in collaboration with other universities, industries, foreign**

   Institutions, etc.   : NILL

8. **Details of courses/programmes discontinued (if any) with reasons :**

   There is no intake during the year 2015-2017 due to non-availability of Doctorate faculty.

9. **Number of Teaching posts**

Designation	Sanctioned	Filled
Professors	1	1
Associate Professors	2	2
Asst. Professors	5	6
Total		9

10. Faculty profile with name, qualification, designation, specialization,

Name	Qualification	Specialisation	Experience
Dr.B.Renuka	MBA,Ph.D	Finance	14
L.Chaithanya	MBA	Finance	9
K.Gyaneshwari	MBA	Marketing	7
A.Chaithanya	MBA	HR	7
B.Rajani	MBA	HR	2
A.Balakrishna	MBA	HR	3
T.Rakesh	MBA	Finance	3
B.Nethra sri	MBA	HR	2
N.Kranthi Vahini	MBA	HR	0

11. List of senior visiting faculty.

1. Dr. B. Krishna Reddy – Department of Business Management, O.U

2. Dr. J Vara Prasad Reddy – Director, TKRIMS

3. Dr. B Parameshwar Reddy -

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty : NILL

13. Student -Teacher Ratio (programme wise) : 1:15

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Designation	Sanctioned	Filled
Technical/Core Staff	08	09
Administrative staff	01	01

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D. / MPhil/PG.

(i) PhD :1   (ii)PG:8

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received   : NILL

17. **Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received : NILL**

18. **Research Centre / facility recognized by the University : NILL**

19. **Publications : 8**

20. **Areas of consultancy and income generated: NILL**

21. **Faculty as members in National/International/Editorial Boards : NILL**

22. **Student Projects**:

    (m) Percentage of students who have done in-house projects including

    Interdepartmental/ programme : **NILL**

    (n) Percentage of students placed for projects in organizations outside the institutions

    i.e. in research laboratories/industry/other agencies : **100%**

23. **Awards/ Recognitions received by faculty and students :**

S.No	Student	Awards	Year
1	P Sagarika	Paper Presentation	2016
2	D Pooja	Paper Presentation	2016
3	S Vennela	Paper Presentation	2016
4	K Satish	Kabaddi	2015
5	P Bhanu Prakash	Kabaddi	2015
6	Srinivas Reddy	Kabaddi	2015
7	H.Prashanth	Kabaddi	2015
8	A Srikanth	Kabaddi	2015

24. **List of eminent academicians and scientists/ visitors to the department :** NILL

25. **Seminars/ Conferences/Workshops organized & the source of funding**

S.No.	Name	National	International	Year	Source of funding
1.	Drain your brain seminar	National	-	2013	Self
2.	Seminar by NSIC	National	-	2013	Self

26. Student profile programme/course wise:

Name of the Course / programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
2013-15	240	38	26	12	89
2014-16	240	77	47	30	57
2015-17	0	0	0	0	0
2016-18	60	44	21	23	-

27. Diversity of Students last four years

Academic Year	% of students from the same state	% of students from other States	% of students from abroad
2013-15	95	5	0
2014-16	100	0	0
2015-17	0	0	0
2016-18	98	2	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc. : NILL

29. Details of Infrastructural facilities

Library No. Of Volumes   : 4838

Internet facilities for Staff &Students   : Available

Class rooms with ICT facility   : Available

Laboratories   : 01

30. Number of students receiving financial assistance from college, university, Government or other agencies: 70%

31. Details on student enrichment programmes (special lectures/workshops /seminar) with external experts

S.NO.	Seminar/Workshops/Seminar	A.Y	Conducted by
1.	Two days' workshop on Indian Capital Market.	2017	KARVEY
2.	How to choose an elective	2017	Prof. Vidyadhar Reddy

32. Teaching methods adopted to improve student learning:

PPT, participative discussions, seminars, lectures, management activities, Case studies

33. Participation in Institutional Social Responsibility (ISR) and Extension activities (NSS- National Service Scheme) : NILL

34. SWOC analysis of the department and Future plans

➢ Our Department consists of qualified faculty members with good academic background who always tries to upgrade the quality of education.

➢ Our strength lies in our infrastructure like well-equipped lab as well as library.

➢ Our Institution has location advantage for which students found no obstacles in logistics.

➢ As the education system is facing many challenging aspects in providing 360 degrees of exposure, it is hard to meet all the means of challenges. Still we are trying to meet the quality in all aspects by reviewing and analyzing the past experiences.

➢ Our department trying to make the all the students employable even under recessive situations in the market.

ANNEXURE I

PROCEEDINGS OF THE
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
(Established by Andhra Pradesh Ordinance No. 30 of 2008)
Kukatpally, Hyderabad – 500 085, Andhra Pradesh (India)

Procds. No.AAC/Permanent Affiliation TKR CET/2014   Date: 30-05-2014

Sub: JNTUH – UAAC – Grant of Permanent Affiliation to **"TKR College of Engineering & Technology",** Medbowli, Meerpet, Hyderabad-500 079 from the Academic Year 2014-15 to 2018-19- Orders Issued.

Read: 1. Letter dated 08-03-2014 received from the Principal
   "TKR College of Engineering & Technology".
   2. UAAC/Affi/FFC-Inspections-Permanent/Temporary Affiliation/2014, dated 16-05-2014
   3. FFC Report dated: 29-05-2014.
   4. The approved Guidelines in the EC of JNTUH in its Tenth meeting, dated 14-12-2012.
   5. Minutes of the Standing Committee for Affiliation, dt: 04-01-2014.
   6. Note file orders of the Vice- Chancellor, dt: 30-05-2014.

***

O R D E R:

1. The Principal **"TKR College of Engineering & Technology",** Medbowli, Meerpet, Hyderabad-500 079 has submitted an application for grant of Permanent Affiliation by JNTUH from the Academic Year 2014-15 vide (1) read above. The University has constituted a Fact Finding Committee to examine the proposal for considering the grant of Permanent Affiliation of the College vide (2). The Fact Finding Committee has inspected the college and submitted its report to the University vide (3). Based on the existing Guidelines for Permanent Affiliation vide (4) and the minutes of Standing Committee for Affiliation vide (5) the College is fulfilling the requirements for grant of Permanent Affiliation.

2. In this connection, the Vice-Chancellor is pleased to grant Permanent Affiliation to **"TKR College of Engineering & Technology",** Medbowli, Meerpet, Hyderabad-500 079 to offer UG, PG Degree Courses in the following disciplines with the intake shown against each for **5 years** w.e.f. the Academic Year i.e. **2014-15 to 2018-19** vide(6).

SNo.	Name of the Course	INTAKE
1.	CSE	240
2.	IT	60
3.	ECE	240
4.	MECH	180
5.	EEE	120
6.	Civil	120
7.	MBA	240
8.	M.Tech-VLSI Design	24
9.	M.Tech- Power electronics	24
10.	M.Tech- Computer Science & Engg	24
11.	M.Tech- Software engineering	18
12.	M.Tech- CAD/ CAM	18
13.	M.Tech- Structural Engineering	18
14.	**M.Tech- Highway Engineering**	**24**
15.	**M.Tech- Electrical Power Systems**	**24**

The Permanent Affiliation is subject to the following conditions:

1. The Management shall follow the norms of UGC/ AICTE and the rules of Affiliation of JNTUH Hyderabad in all respects.
2. The Management shall follow the Academic Regulations and Examination Schedules of JNTUH Hyderabad.
3. The appointment of the Principal shall be ratified by the University.
4. The College shall have 65% of the Faculty ratified by JNTUH.
5. The University will monitor the existing courses and inspect all the new courses / increase in intake for every Academic Year before start of the counseling process.
6. During the period of Permanent Affiliation, the college needs to submit annual report along with Application, Inspection and Affiliation Fees and dues, if any.
7. The University can withdraw the Permanent Affiliation at any point of time if the college does not satisfy the standards and norms as set by the University for Affiliation.
8. Affiliation and Inspection Fee dues, if any, shall be cleared before receiving these proceedings.

REGISTRAR

To
The Director / Principal,
"TKR College of Engineering & Technology",
Medbowli, Meerpet,
Hyderabad-500 079.

Copy to:

The Chairman/ Secretary **"TKR College of Engineering & Technology"**, Medbowli, Meerpet, Hyderabad-500 079.

The Principal Secretary, Dept. of Higher Education (EC-1) Dept, Govt. of Andhra Pradesh, Secretariat, Hyderabad

The P.A. to Chairman, Andhra Pradesh State Council of Higher Education, JNTU Old Campus, Masab Tank, Hyderabad-500 028

The Secretary, A.P. State Council of Higher Education, JNTU Old Campus, Masab Tank, Hyderabad-28.

The Commissioner of Technical Education, BRKR Govt. Office Complex, Hyderabad

The Secretary, University Grants Commission, New Delhi-110002.

The Member Secretary, All India Council for Technical Education, New Delhi – 110002.

Copy to the PA to the Vice-Chancellor.

Copy to the PA to the Rector.

Copy to the PA to the Registrar.

Copy to the DAP, JNTUH, Hyderabad.

Copy to the Director of Evaluation, JNTUH, Hyderabad.

ANNEXURE II

विश्वविद्यालय अनुदान आयोग
बहादुरशाह ज़फर मार्ग
नई दिल्ली-110 002
UNIVERSITY GRANTS COMMISSION
BAHADURSHAH ZAFAR MARG
NEW DELHI-110 002

SPEED POST

F. No. 8-619/2014 (CPP-I/C)

January, 2016

27 JAN 2016

The Registrar,
Jawaharlal Nehru Technological University
Hyderabad – 500 075
Telangana

Sub: Recognition of College under Section 2 (f) & 12 (B) of the UGC Act, 1956.

Sir,

     I am directed to refer to the letter no. TKRCET/Principal/41/2015 dated 27-10-2015 received from the Principal, TKR College of Engineering and Technology, Medbowli, Meerpet, Saroornagar, Hyderabad – 500 097, Telangana on the above subject and to say that it is noted that the following college is **un-aided/self financed** and **permanently** affiliated to **Jawaharlal Nehru Technological University, Hyderabad.** I am further to say that the name of the following college has been included in the list of colleges prepared under Section 2 (f) & 12 (B) of the UGC Act, 1956 under the head '**Non-Government, self financed** Colleges teaching upto **Master's** Degree':-

Name of the College	Year of Establishment	Remarks
TKR College of Engineering and Technology, Medbowli, Meerpet, Saroornagar, Hyderabad – 500 097, Telangana	2002	The College is now declared fit to receive Central assistance in terms of Rules framed under Section 12 (B) of the UGC Act, 1956. However, the College, being a self financing & unaided, would be eligible to receive UGC's support only in respect of teachers & students related schemes as per the decision of the Commission dated 8th July 2011.

     The Indemnity Bond and the other supporting documents submitted in respect of the above College have been accepted by the University Grants Commission.

Yours faithfully,

(Charan Dass)
Under Secretary

Copy to:-

1. The Director, TKR College of Engineering and Technology, Medbowli, Meerpet, Saroornagar, Hyderabad – 500 097, Telangana
2. The Secretary, Government of India, Ministry of Human Resource Development, Department of Secondary Education & Higher Education, Shastri Bhavan, New Delhi – 110 001.
3. The Secretary (Higher Education), Government of Telangana, Block D, Ground Floor Secretariat, Hyderabad, (Telangana).
4. The Joint Secretary, UGC, South Eastern Regional Office (SERO), P.B. No. 152, A.P.S.F.C. Building, IV Floor, 5-9-194, Chirag Ali Lane, Hyderabad - 500 001, (Telangana).
5. Publication Officer, (UGC-Website), New Delhi.
6. Section Officer (F.D.-III Section) U.G.C., New Delhi.
7. Guard file.

(Sunita Kalra)
Section Officer

ANNEXURE III

अखिल भारतीय तकनीकी शिक्षा परिषद्
ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
(भारत सरकार का एक सांविधिक संस्थान) (A STATUTORY BODY OF THE GOVERNMENT OF INDIA)

2 - 3

F.No.: 06/05/AP/ENGG/2002/008
Date : 27.05.2002

The Commissioner of Technical Education,
Govt. of Andhra Pradesh,
5th Floor, BRK.R, Govt.. Complex,
Hyderabad – 500 063

Sub: AICTE approval to **T.K.R. EDUCATIONAL SOCIETY,, 16-2-751/A/31/C, TIRUMALA HILLS, ASMAN GADH,, MALKAPET,, HYDERABAD - 500 036, ANDHRA PRADESH** for establishment of **T.K.R. COLLEGE OF ENGG & TECH., SURVEY NO. 8, MEDBOWLI MIREPET,, HYDERABAD- 500 035, ANDHRA PRADESH, ,**

Sir,

   I am directed to state that based on the consultations with the concerned State Govt., the concerned affiliating body and on recommendations of the Regional Committee, the Expert Committee constituted by the Council and as per the provisions of AICTE Act and Regulations, the All India Council for Technical Education (AICTE), is pleased to accord approval to **T.K.R. EDUCATIONAL SOCIETY, 16-2-751/A/31/C, TIRUMALA HILLS, ASMAN GADH,, MALKAPET,, HYDERABAD - 500 036, ANDHRA PRADESH** for establishment of **T.K.R. COLLEGE OF ENGG & TECH., SURVEY NO. 8, MEDBOWLI MIREPET,, HYDERABAD- 500 035, ANDHRA PRADESH, ,**   for the academic year **2002-2003**, for course(s) and intake as given below with specific condition that admission shall be made through the Central Counseling by the Government of **ANDHRA PRADESH** only. This approval is valid only for the academic years 2002-2003 and cannot be extended for the next year 2003-2004. In the event the establishment of the institutions having not been operationalised, this approval is not valid unless AICTE specifically revalidates.

COURSE(S)	INTAKE	LEVEL	DURATION (YEARS)	PERIOD OF APPROVAL
ELECTRONICS & COMMUNICATION ENGG.	60.	Degree	4	2002-03
COMPUTER SCIENCE & ENGG.	60.	Degree	4	2002-03
ELECTRICAL & ELECTRONICS ENGG.	60.	Degree	4	2002-03
BIO TECHNOLOGY	60.	Degree	4	2002-03
Total	240			

   This approval has been accorded subject to fulfillment of general conditions and as per the Norms and Standards of the AICTE, and also specific conditions(Annexure-I)

   The attention of the management is drawn to the fact that the approval given now is only for one academic session before the end of which an expert committee shall visit to assess if the norms and standards as stipulated by AICTE are fulfilled, and only then will the continuation or otherwise shall be intimated.

   The admission will be made in accordance with Regulations notified by the AICTE vide GSR 476(E) dated 20.05.1994 based on the Hon'ble Supreme Court Judgement dated 04.02.1993 with regard to WP(C) No. 607 of 1992 in the case of Unni Krishanan JP and other etc. V/s. State Government of Andhra Pradesh and others etc. and later judgements. No Management/Institute/Trust or Society shall announce admissions directly under any circumstances. Any action by the institute contrary to any provisions laid down by the Council and concerned State Government shall make it liable for actions.

In the event of infringement/contravention or non-compliance of the provisions of AICTE Regulations, Guidelines or the norms and standards as prescribed by the AICTE, the Council shall take further action to withdraw approval, and the liability arising out of such withdrawal of approval will be solely that of Management/Trust/Society and/or Institution.

The Council may inspect/ visit the Institution any time it may deem fit to verify the progress/ compliance.

You are requested to kindly monitor the progress made by this institution towards fulfilling the norms and standards prescribed by the Council and keep the concerned Regional Office and AICTE, New Delhi informed.

Yours faithfully,

(P.N. Razdan)
Advisor (UG)

Copy to :

1. The Regional Officer, AICTE, Southern Regional Office, 26 Haddows Road, Chennai – 600-006..

He is requested to monitor compliance with the Norms and Standards and conditions stipulated by the Council and keep the concerned Regional Committee and the AICTE informed of the same.

He is also requested to ensure the receipt of notorised undertaking as specified by the Council from the institution/management concerned within the stipulate time frame.

2.   The Registrar, JNTU

He is requested to complete the process of affiliation for facilitating admissions.

3.   The Principal, T.K.R. COLLEGE OF ENGG & TECH. SURVEY NO. 8, MEDBOWLI MIREPET, HYDERABAD-500 035 ANDHRA PRADESH

(i)The institution should submit a notorised undertaking on non-judicial stamp paper as per format given in Annexure II to the concerned Regional Office, AICTE with a copy to the Headquarters, AICTE, New Delhi within one month from the date of receipt of this approval letter.

(ii)The institution/management should also submit a notorised undertaking from the Governing Body to the concerned Regional Office, AICTE with a copy to Headquarters, AICTE, New Delhi and to the concerned State Government, that all the infrastructural and instructional facilities shall be in place as per the norms of AICTE prior to the admissions of any student for the academic year 2002-2003.

4. The Director of Technical Education., Andhra Pradesh.

5.Guard File

(P.N. Razdan)
Advisor (UG)

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. South-Central/1-2814090491/2016/EOA   Date: 25-Apr-2016

To,

Sub: Extension of approval for the academic year 2016-17

Ref: Application of the Institution for Extension of approval for the academic year 2016-17

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	South-Central	Application Id	1-2814090491
Name of the Institute	TKR COLLEGE OF ENGINEERING & TECHNOLOGY	Permanent Id	1-5727759
Name of the Society/Trust	TKR EDCUCATIONAL SOCIETY	Institute Address	SURVEY.NO8/A, MEDBOWLI, MEERPET, HYDERABAD., HYDERABAD, RANGAREDDI, Telangana, 500097
Institute Type	Unaided - Private	Society/Trust Address	SURVEY.NO8/A, MEDBOWLI, MEERPET, HYDERABAD.,HYDERABAD,RANGAREDDI,Andhra Pradesh,500097

Opted for change from Women to Co-ed and Vice versa	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved and Vice versa	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2016-17

Application Id: 1-2814090491			Course	Full/Part Time	Affiliating Body	Intake 2015-16	Intake Approved for 2016-17	NRI Approval status	PIO / FN / Gulf quota Approval status	Foreign Collaboration/Twining Program Approval status*
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	CAD/CAM	FULL TIME	Jawaharlal Nehru Technological University, Kukatpally	18	18	NA	NA	NA
ENGINEERIN	1st Shift	POST	COMPUTER SCIENCE AND	FULL TIME	Jawaharlal Nehru	24	24	NA	NA	NA

Application Number: 1-2814090491
Note: This is a Computer generated Report.No signature is required.

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Page **1** of **4**
Letter Printed On:2 May 2016

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

G AND TECHNOLOGY		GRADUATE	ENGINEERING		Technological University, Kukatpally					
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	ELECTRICAL POWER SYSTEMS	FULL TIME	Jawaharlal Nehru Technological University, Hyderabad	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	HIGHWAY ENGINEERING	FULL TIME	Jawaharlal Nehru Technological University, Hyderabad	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	POWER ELECTRONICS	FULL TIME	Jawaharlal Nehru Technological University, Kukatpally	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	SOFTWARE ENGINEERING	FULL TIME	Jawaharlal Nehru Technological University, Kukatpally	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	STRUCTURAL ENGINEERING	FULL TIME	Jawaharlal Nehru Technological University, Kukatpally	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	VLSI DESIGN	FULL TIME	Jawaharlal Nehru Technological University, Kukatpally	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	Jawaharlal Nehru Technological University, Kukatpally	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCEINCE & ENGINEERING	FULL TIME	Jawaharlal Nehru Technological University, Kukatpally	240	240	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRICAL AND ELECTRONICS ENGINEERING	FULL TIME	Jawaharlal Nehru Technological University, Kukatpally	120	120	NA	NA	NA
	1st	UND	ELECTRONICS	FULL	Jawaharlal	240	240	NA	NA	NA

Application Number: 1-2814090491
Note: This is a Computer generated Report.No signature is required.
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Page **2** of **4**
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PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

ENGINEERING AND TECHNOLOGY	Shift	ER GRADUATE	& COMMUNICATION ENGG	TIME	Nehru Technological University, Kukatpally					
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	Jawaharlal Nehru Technological University, Kukatpally	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Jawaharlal Nehru Technological University, Kukatpally	180	180	NA	NA	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	DIPLOMA	CIVIL ENGINEERING	FULL TIME	State Boadr of Technical Education and Training, Hyderabad	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	DIPLOMA	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	State Boadr of Technical Education and Training, Hyderabad	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	DIPLOMA	ELECTRICAL AND ELECTRONICS ENGINEERING	FULL TIME	State Boadr of Technical Education and Training, Hyderabad	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	DIPLOMA	ELECTRONICS & COMMUNICATION ENGG	FULL TIME	State Boadr of Technical Education and Training, Hyderabad	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	2nd Shift	DIPLOMA	MECHANICAL ENGINEERING	FULL TIME	State Boadr of Technical Education and Training, Hyderabad	120	120	NA	NA	NA
MANAGEMENT	1st Shift	POST GRADUATE	MASTERS IN BUSINESS ADMINISTRATION	FULL TIME	Jawaharlal Nehru Technological University, Kukatpally	240	120	NA	NA	NA

The above mentioned approval is subject to the condition that TKR COLLEGE OF ENGINEERING & TECHNOLOGY shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Application Number: 1-2814090491
Note: This is a Computer generated Report.No signature is required.
Printed By : AE4529061

Page **3** of **4**
Letter Printed On:2 May 2016

All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Note: Validity of the course details may be verified at www.aicte-india.org

Dr. Avinash S Pant
Vice - Chairman, AICTE

Copy to:

1. **The Regional Officer,**
   All India Council for Technical Education
   First Floor, old BICARD Building
   Jawaharlal Nehru Technological University
   Masab Tank, Hyderabad-500076

2. **The Director Of Technical Education,**
   Telangana

3. **The Registrar,**
   Jawaharlal Nehru Technological University, Hyderabad

4. **The Principal / Director,**
   TKR COLLEGE OF ENGINEERING & TECHNOLOGY
   SURVEY.NO8/A, MEDBOWLI, MEERPET, HYDERABAD.,
   HYDERABAD,RANGAREDDI,
   Telangana,500097

5. **The Secretary / Chairman,**
   TKR EDCUCATIONAL SOCIETY
   SURVEY.NO8/A, MEDBOWLI, MEERPET, HYDERABAD.,
   HYDERABAD,RANGAREDDI,
   Andhra Pradesh,500097

6. **Guard File(AICTE)**

Application Number: 1-2814090491
Note: This is a Computer generated Report.No signature is required.
Printed By : AE4529061

Page **4** of **4**
Letter Printed On:2 May 2016

ANNEXURE IV

NATIONAL BOARD OF ACCREDITATION

02ⁿᵈ September, 2016

File No. 11-128-2010-NBA

To,

The Principal
TKR College of Engineering and Technology,
Survey No. 8/A Medbowli,
Meerpet, Saroornagar, Hyderabad,
Telangana 500097

Subject : Accreditation status of UG Engineering program(s) offered by **TKR College of Engineering and Technology, Survey No. 8/A, Medbowli, Meerpet, Saroornagar, Hyderabad, Telangana 500097**

Sir,

This has reference to NBA's letter of even number dated 23/03/2015 under which some of the UG Engineering program(s) offered by your Institution were granted accreditation in Tier II by National Board of Accreditation.

2.   National Board of Accreditation (NBA) has now decided that in all cases where UG Engineering program(s) of an Institution were granted provisional accreditation for a period of 2 years in Tier-I/ Tier-II format and whose period of validity has not yet expired, the period of provisional accreditation of these programs shall be extended from 2 to 3 years subject to the condition that they meet the essential Pre-visit qualifiers. The Pre-visit qualifiers submitted by **TKR College of Engineering and Technology, Survey No. 8/A, Medbowli, Meerpet, Saroornagar, Hyderabad, Telangana 500097** , have been considered and approved by NBA in respect of the following UG Engineering program(s). Accordingly, the competent authority in NBA has approved the following accreditation status to the program(s) as given in the Table below:

Sl. No. (1)	Name of the Program(s) (UG) (2)	Basis of Evaluation (3)	Accreditation Status (4)	Period of extended validity (5)	Remarks (6)
1.	Electrical & Electronics Engineering	Tier-II Document	Provisionally Accredited	Academic Year 2017-2018, i.e., upto 30-06-2018.	Accreditation status granted is valid for the period indicated in col.5 or till the program has the approval of the competent authority, whichever is earlier
2.	Electronics & Communication Engineering				
3.	Mechanical Engineering				
4.	Computer Science & Engineering				

3.   It may be noted that only students who graduate during the validity period of accreditation, will be deemed to have graduated with an NBA accredited degree.

4.   The programs have been granted provisional accreditation. **TKR College of Engineering and Technology, Survey No. 8/A, Medbowli, Meerpet, Saroornagar, Hyderabad, Telangana 500097** , should submit the Compliance Report at least six months before the expiry of validity of accreditation mentioned above to be eligible to be considered by the concerned Committee in NBA for further processing of the accreditation status. This could entail further extension of accreditation or a revisit, as deemed appropriate by NBA Committees.
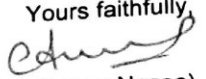
5.   The accreditation status awarded to the program(s) as indicated in the above table does not imply that the accreditation has been granted to **TKR College of Engineering and Technology, Survey No. 8/A, Medbowli, Meerpet, Saroornagar, Hyderabad, Telangana 500097,** as a whole. As such the Institution should nowhere along with its name, including on its letter head etc. write that it is accredited by NBA because NBA only accredits program(s), and not Institutions. If such an instance comes to NBA's notice, this will be viewed seriously. Complete name of the program(s) accredited, level of programs and the period of validity of accreditation, should be mentioned unambiguously whenever and wherever it is required to indicate the status of accreditation by NBA.

6.   The accreditation status of the above program(s) is subject to change on periodic review, as deemed necessary by the NBA. It is desired that the relevant information in respect of accredited program(s) as indicated in the Table in paragraph 2, appears on the website and information bulletin of your College/Institution.

7.   The accreditation status awarded to the program(s) as indicated in Table in paragraph 2 above is subject to maintenance of the current standards during the period of accreditation. If there are any changes in the status (major changes of faculty strength, organizational structure etc.), the same are required to be communicated to the NBA, with an appropriate explanatory note. .

Yours faithfully,

(Dr. Anil Kumar Nassa)
Member Secretary

Copy to:

1. The Principal Secretary (Higher Education),
    Government of Telangana,
    D Block, Secretariat Building,
    Hyderabad- 500022 Telangana

2. The Director of Technical Education,
    State Board of Technical Education and Training
    Govt. of Telangana,
    7th Floor, B.R.K.R. Bhavan
    Tankbund Road, Saifabad
    Hyderabad- 500 063, Telangana

3. The Vice Chancellor,
    Jawaharlal Nehru Technological University Hyderabad.
    Kukatpally,
    Hyderabad - 500 085, Telangana

4. Accreditation File

5. Master Accreditation file of the State.

NATIONAL BOARD OF ACCREDITATION

NBCC Place, East Tower, 4ᵗʰ Floor, Bhisham Pitamah Marg,
Pragati Vihar, New Delhi-110 003
Tel: +91 11 2436 0620, 2436 0654 Telefax: +91 11 2436 0682

NATIONAL BOARD
of ACCREDITATION

Dated: 23ʳᵈ March, 2015

F. No. 11-128/2010/NBA

To,

The Principal
TKR College of Engineering & Technology,
Medbowli, Meerpet, Saroornagar,
Hyderabad-500 097, A.P.

Subject: Accreditation status of programmes applied by TKR College of Engineering & Technology, Medbowli, Meerpet, Saroornagar, Hyderabad-500 097, A.P.

Sir,

This has reference to application dated 30/12/2011 in **Tier-II format** seeking accreditation from National Board of Accreditation (NBA) to UG Engineering programmes offered by TKR College of Engineering & Technology, Medbowli, Meerpet, Saroornagar, Hyderabad-500 097, A. P.

2.   An Expert Team conducted an on-site evaluation of the programmes during 30ᵗʰ January to 01ˢᵗ February, 2015. The reports submitted by the Expert Team were considered by the concerned Committees constituted for the purpose in NBA. The competent authority has approved the accreditation status to the following programmes as below:

Sl. No. (1)	Name of the Programmes (UG) (2)	Basis of Evaluation (3)	Accreditation Status (4)	Period of validity w.e.f. 01.07.2015 (5)	Remarks (6)
1	Electrical & Electronics Engineering	Tier-II	Provisionally Accredited	2 years	Accreditation Status granted is valid for the period indicated in Col. 5 or till the programme has the approval of the Competent Authority, whichever is earlier.
2	Electronics & Communication Engineering		Provisionally Accredited	2 years	
3	Mechanical Engineering		Provisionally Accredited	2 years	
4	Computer Science & Engineering		Provisionally Accredited	2 years	

3.   It may be noted that only students who graduate during the validity period of accreditation, will be deemed to have graduated with an NBA accredited degree.

4.   The programmes have been granted provisional accreditation for 2 years. As such TKR College of Engineering & Technology, Medbowli, Meerpet, Saroornagar, Hyderabad-500 097, A.P., should submit the Self Assessment Report alongwith a Compliance Report atleast after one year to be considered by the Engineering Evaluation and Accreditation Committee (EEAC) to formulate a view whether compliance report is enough to recommend for accreditation or a visit to the Institute is necessary. The recommendations of the EEAC will be considered by the Sub-Committee of the Academic Advisory Committee of Engineering for a decision.

5.   The accreditation status awarded to the programmes as indicated in the above table does not imply that the accreditation has been granted to TKR College of Engineering & Technology, Medbowli, Meerpet, Saroornagar, Hyderabad-500 097, A.P. as a whole. As such the Institute should nowhere along with its name including on its letter head etc. write that it is accredited by NBA because it is programme accreditation and not Institution accreditation. If such an instance comes to NBA's notice, this will be viewed seriously. Complete name of the programme(s) accredited, level of programmes and the period of validity of accreditation, as well as the date from which the accreditation is effective, should be mentioned unambiguously whenever and wherever it is required to indicate the status of accreditation by NBA.

6.   The accreditation status of the above programmes is subject to change on periodic review, if needed by the NBA. It is desired that the relevant information in respect of accredited programmes as indicated in the table in paragraph 2, appears on the website and information bulletin of your Institution.

7.   The accreditation status awarded to the programmes as indicated in table in paragraph 2 above is subject to maintenance of the current standards during the period of accreditation. If there are any changes in the status (major changes of faculty strength, organizational structure etc.), the same are required to be communicated to the NBA, with an appropriate explanatory note.

8.   Copies of the Comprehensive Report submitted by the Chairman of the Expert Team along with the detailed reports submitted by the Expert Team which visited your institution for the programmes evaluated are enclosed for reference and to take necessary action to overcome the shortcomings, if any, pointed out by the Expert Team.

9.   If the Institute is not satisfied with the decision of NBA, it may appeal within thirty days of receipt of this communication giving reasons for the same and by paying the requisite fee.

Yours faithfully,

(Dr. Anil Kumar Nassa)
Member Secretary

Encls: 1. Copy of Report of Chairman of the Visiting Team.
            2. Copies of Expert Reports of the Visiting Team.

Copy to:

1.   The Vice Chancellor, Jawaharlal Nehru Technological University Hyderabad
     Kukatpally, Hyderabad - 500 085, Telangana.
2.   The Principal Secretary (Higher Education) Government of Andhra Pradesh,
     J Block, 4th Floor, Secretariat Building, Hyderabad-500022.
3.   The Director of Technical Education, Dept. of Technical Education,
     Govt. of Andhra Pradesh, Vth Floor, BRK Complex, Tarbund Road,
     Hyderabad-500063, A. P.
4.   Accreditation File
5.   Master Accreditation Folder of the State.

ANNEXURE V

Name of the Faculty	**B.JayaLakshmi Reddy**
Vision Statement:	*"To achieve and evolve as a centre of academic excellence and research center in the field of Computer Science and Engineering."*
Mission Statement:	**The department strives to continuously engage in:** ➢ *Providing the students with in depth understanding of fundamentals and practical training related to professional skills and their applications through effective Teaching- Learning Process and state of the art laboratories pertaining to CSE and inter disciplinary areas.* ➢ *Preparing students in developing research, design, entrepreneurial skills and employability capabilities.* ➢ *Providing consultancy services and promoting Industry-Department Interactions.*
Programme Educational Objectives (PEOs)	**PEO1** *To create and sustain a community of learning in which students acquire knowledge and apply in their concerned fields with due consideration for ethical, ecological, and economic issues.* **PEO2** *To provide knowledge based services so as to meet the needs of the society and industry.* **PEO3** *To make the students understand, design and implement the concepts in multiple arenas.* **PEO4** *To educate the students in disseminating the research findings with Good soft skills so as to become successful entrepreneurs.*
Subject Code	**A40507**
Subject Title	DATA BASE MANAGEMENT SYSTEMS
Credit Value	4
Nature of the Subject	**Core**
Level	**B.Tech II Year II Semester**
Pre-requisite/Co-requisite/Exclusive	Basic Knowledge of Data Processing and basics of Computer Organization and Operating System Concepts

TKR College of Engineering & Technology
Department of Computer Science &Engineering

Course Objectives	**The student should be able to** 1. To understand the basic concepts and the applications of database systems. 2. To master the basics of SQL and construct queries using SQL. 3. To understand the relational database design principles. 4. To become familiar with basic issues of transaction processing and concurrency control. 5. To become familiar with database storage structures and access techniques.
Intended Learning Outcomes/ Course Outcomes (CO)	**At the end of this course the student will be able:** 1 Demonstrate the basic elements of a relational database management system. 2 Ability to identify the data models for relevant problems. 3 Ability to design entity relationship and convert entity relationship diagrams into RDBMS and formulate SQL queries on the respect data. 4 Apply normalization for the development of application software's.
Subject Synopsis/ Indicative Syllabus	**MODULE-I :** 1. Introduction-Database System Applications 2. Introduction to Database design 3. Relational Algebra and Calculus 4. Form of basic SQL query **MODULE-II :** 1. Introduction to Schema Refinement 2. Transaction Management 3. Concurrency control and Recovery system 4. Overview of Storage and Indexing **Course beyond syllabus is covered through the following topics** 1.How to Create application of student database 2.Stored procedures 3.Cursors
Teaching/Learning Methodology	A combination of lectures, tutorial classes, and laboratory sessions are used to deliver the various topics in this subject. Some of the topics are covered in a problem-based format to enhance the attainment of learning outcomes.

Course Outcomes (CO)	Relationship of Course Outcomes (CO) to Program Outcomes (PO)												
	1 – Slightly				2 – Moderately						3 – Substantive		
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	3	3			3	1	1				1	3	3
2	3	3			2	1	2				2	3	3
3	2	3			2	1	2				2	3	3
4	3	3			2	1	2				3	3	3
Degree of contribution	91%	100%			75%	35%	59%				67%	100%	100%

TKR College of Engineering & Technology
Department of Computer Science &Engineering

   	Above 70% is considered as Strong contribution
   	Above 50% below 70% is considered as Moderate contribution
   	below 50% is considered as Average contribution
	Zero is considered as No contribution.

Assessments Methods	CO1	CO2	CO3	CO4
1. Assignments / Projects and internals (25%)	X	X	X	X
2. Attendance (20%)	X	X	X	X
3. Final Exam (55%)	X	X	X	X

The expected outcomes of the course / subject are:

S.	General Categories of outcomes	Specific outcomes of the course
1	**An ability to apply knowledge of mathematics, science and engineering fundamentals in computer science & Engineering.**	Master the basic concepts and appreciate the applications of database systems.
2	**An ability to design and conduct experiments to analyze and interpret data.**	Master the basics of SQL and construct queries using SQL.
3	**An ability to design a system Component or process to meet desired needs**	
4	**An ability to function in multi-disciplinary teams to develop project management**	
5	**An ability to identify, formulate and solve engineering problems.**	Be familiar with a commercial relational database system (Oracle) by writing SQL using the system.
6	**An understanding of professional, social and ethical responsibility**	Be familiar with the relational database theory, and be able to write relational algebra
7	**An ability to communicate effectively both in written and oral formats**	Mater sound design principles for logical design of databases, including the E-R method. and normalization approach
8	**The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context**	
9	**Recognizing the need and an ability to engage in life-long learning.**	
10	**Knowledge of contemporary issues.**	
11	**An ability to use the techniques, skills and modern engineering tools necessary for engineering practice**	Be familiar with basic database storage structures and access techniques: file and page organizations, indexing methods including B-tree, and hashing.

TKR College of Engineering & Technology
Department of Computer Science &Engineering

12	**Knowledge of developing algorithms, designing, implementation, testing and applications in computer related areas.**	Master the basics of query evaluation techniques and query optimization.
13	**Able to apply the concepts of networks and security related issues in the related fields**	Master working successfully on a team by design and development of a database application system as part of a team.

Student Study Effort Expected	**Class contact**		
	Lecture	3 hours/week for 15weeks	45 Hrs.
	Tutorial	1 hour/week for 10 weeks	10Hrs.
	Course beyond curriculum		4 Hrs.
	Recommended student study efforts beyond class work		53 Hrs.
	Total student study effort		112 Hrs.

TKR College of Engineering & Technology
Department of Computer Science &Engineering

Performance Index

Pass %	CAY (2014-15)	CAYM1 (2013-14)	CAYM2 (2012-13)	CAYM3 (2011-12)
>=65	25%	17%	40%	80%
<65	75%	83%	60%	20%
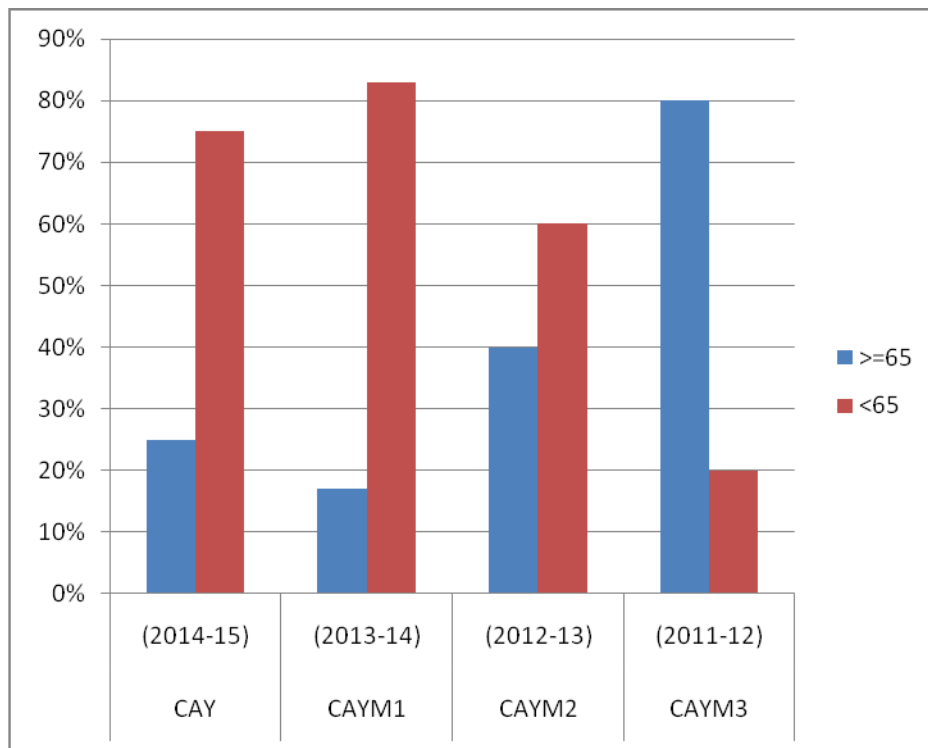
TKR College of Engineering & Technology
Department of Computer Science &Engineering

Expected date of completion of the whole Subject / Course (Including Tutorials):

S.No	Unit No	Description	Duration (Dates)		Total No. Periods
			From	To	
1.	I	Introduction-Data base System Applications	29-12-2014	19-01-2015	15
2.	II	Relational Algebra and Calculus	20-01-2015	07-02-2015	15
3:	III	Introduction to Schema Refinement	09-02-2015	07-03-2015	12
4.	IV	Transaction Management	09-03-2015	28-03-2015	13
5.	V	Overview of Storage and Indexing	30-03-2015	18-04-2015	15
Total					**70**
Reading List and References		1. Raghurama Krishnan, Johannes Gehrke, *"Data base Management Systems"*, TATA McGrawHill 3rd Edition 2. Silberschatz, Korth, *"Data base System Concepts",* McGraw hill, 6TH edition			

B.JayaLakshmi Reddy
Asst.Professor,
CSE Dept

Dr. A. Suresh Rao
Head of the Department.
CSE Dept.

Prof. Dr.D.V. Ravi Shankar
Principal

ANNEXURE VI

TKR COLLEGE OF ENGINEERING & TECHNOLOGY
Departmental Academic Committee
Teaching Notes Review Report
Pre-Academic Session Review

Department: Date:…………………………………

Title of the Subject:……………………………   Subject Code:………………………

Sl.No.	Observations	Excellent/good/ fair	Suggestions/ Remarks
1	Depth and breadth of the subject coverage to be covered		
2	Quality of the question bank		
	a) Quiz question bank		
	b) Descriptive assignment Question Papers		
3	Degree of relevance to attainment PO's by the course content		
4	Degree of relevance to attainment of PEO by the course content		
5	Whether the course content is designed in view of bridge the gap for attainment to PO's and PEO's with meaningful course objectives(C.O.)		
6	Past result analysis for reference and identifying remedial measures to be carried out to attainment of improvement		

Committee Members of the Department

1

2

3

Members of the Academic Committee

1. Principal

2. Head of the Department

3. Senior Faculty Member

4. Senior Faculty Member

TKR COLLEGE OF ENGINEERING & TECHNOLOGY
Departmental Academic Committee
Teaching Notes Review Report
Post-Academic Session Review

Department: Date:……………………………………

Title of the Subject:……………………………   Subject Code:………………………

Sl.No.	Observations	Excellent/good/fair	Suggestions/ Remarks
1	Depth and breadth of the subject coverage (which is covered)		
2	Quality of the question bank		
	a) Quiz question bank		
	b) Descriptive assignment Question Papers		
3	Degree of relevance to attainment PO's by the course content		
4	Degree of relevance to attainment of PEO by the course content		
5	Whether the course content is designed in view of bridge the gap for attainment to PO's and PEO's with meaningful course objectives(C.O.)		
6	Whether the performance index of student is evaluated meaning fully (Excellent, Good, Fair)		
7	Past result analysis based remedial task executions		

Committee Members of the Department

1

2

3

Members of the Academic Committee

1. Principal

2. Head of the Department

3. Senior Faculty Member

4. Senior Faculty Member

ANNEXURE VII

T.K.R. College of Engineering & Technology

(Approved by AICTE, Affiliated to JNTUH, Hyderabad, Accredited by NBA)

Institute Academic Calendar 2016-17

JANUARY

M	T	W	Th	F	S	SU	Holidays and Events
						1	13-Bhogi 14-Pongal 26-Republic Day
2	3	4	5	6	7	8	
9	10	11	12	13	14	15	
16	17	18	19	20	21	22	
23	24	25	26	27	28	29	
30	31						

FEBRUARY

M	T	W	Th	F	S	SU	Holidays and Events
		1	2	3	4	5	24-Maha Shivratri
6	7	8	9	10	11	12	
13	14	15	16	17	18	19	
20	21	22	23	24	25	26	
27	28						

MARCH

M	T	W	Th	F	S	SU	Holidays and Events
		1	2	3	4	5	29-Ugadi
6	7	8	9	10	11	12	
13	14	15	16	17	18	19	
20	21	22	23	24	25	26	
27	28	29	30	31			

APRIL

M	T	W	Th	F	S	SU	Holidays and Events
					1	2	5-Sriramnavami 14-Dr.Ambedkar Jayanthi
3	4	5	6	7	8	9	
10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	

MAY

M	T	W	Th	F	S	SU	Holidays and Events
1	2	3	4	5	6	7	
8	9	10	11	12	13	14	
15	16	17	18	19	20	21	
22	23	24	25	26	27	28	
29	30	31					

JUNE

M	T	W	Th	F	S	SU	Holidays and Events
			1	2	3	4	26-Ramzan
5	6	7	8	9	10	11	
12	13	14	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30			

Course/Event	B.Tech II,III,IV II SEM
Commencement of class work	2nd Dec 2016
I Spell Of instructions	02nd Dec - 27th Jan 2017
I MID Examinations	28th Jan - 04th Feb 2017
II Spell of Instructions	06th Feb -04nd Mar 2017
Supplementary Examinations of odd sem	06th -18th Mar 2017
Continuation of second spell of instructions	20th Mar -15th Apr 2017
II MID Examinations	17th -22nd Apr 2017
Preparations & Practical Examinations	24th -29th Apr 2017
End Semester Exams	02nd - 13th May 2017
Semester Break	14th May – 11th Jun 2017
Commencement of class work for the Academic Year 2015-16	13th Jun 2017

Instructions to the students
- Students should meet their Mentor on 3rd Thursday afternoon of every month.
- Should Maintain 85% attendance to avoid last minute hassles.

Instructions to the Faculty Members
- Mentor-Student Meeting on Third Thursday of every month
- Class Representative(CR) meeting with HOD on Second Friday of every month
- Teaching Diary, Attendance Register and attestation by HOD before 5th of every month

Proposed Dates for Conducting Institutional Committee Meetings
- Institute Academic Council Meeting-7th May`17
- Institute Advisory Committee Meeting- 29th Apr`17
- Institute Disciplinary Committee Meeting- as and when required.
- Institute Purchase Committee Meeting-20th Jan`17,15th Apr`17
- Institute Women's Welfare Cell Meeting-5th Jan`17,27th Feb`17
- Internal Quality Assurance Cell (IQAC) Meeting-28th Jan`17, 23th Feb`17, 30th Mar`17, 18th Apr`17
- Institute Time Table Committee Meeting-17th Jun`17
- Institute Feedback Committee Meeting-22nd Jan`17,21th Mar`17

Proposed Dates for Conducting Departmental Committee Meetings
- Department Academic Committee Meeting –First Friday of every month
- Department Advisory Committee Meeting-4rd Jan`17,16th Jun`17
- Department Purchase Committee Meeting-25th Apr`17
- Department Time Table Committee Meeting-8th JAN`17,20th APR`17
- Department Institute-Industry Interaction Committee Meeting- 21st Jan`17,4th Feb`17,14th Mar`17,11th Apr`17
- Department Professional Society Activities Committee Meeting-11th Feb`17,15th Apr`17
- Department Extra and Co-Curricular activities committee Meeting-20th Feb`17
- Department Disciplinary Committee Meeting- as and when required.
- Department Grievance & Redressel Committee Meeting- as and when required.

T.K.R. College of Engineering & Technology

(Approved by AICTE, Affiliated to JNTUH, Hyderabad, Accredited by NBA)

Institute Academic Calendar 2016-17

JULY

M	T	W	Th	F	S	SU	Holidays and Events
				1	2	3	
4	5	6	7	8	9	10	
11	12	13	14	15	16	17	7- Ramzan
18	19	20	21	22	23	24	
25	26	27	28	29	30	31	

AUGUST

M	T	W	Th	F	S	SU	Holidays and Events
1	2	3	4	5	6	7	1-Bonalu
8	9	10	11	12	13	14	15-Independence day
15	16	17	18	19	20	21	24-krishnastami
22	23	24	25	26	27	28	
29	30	31					

SEPTEMBER

M	T	W	Th	F	S	SU	Holidays and Events
			1	2	3	4	
5	6	7	8	9	10	11	5- Ganesjh Chathurthi
12	13	14	15	16	17	18	13- Bakri Id
19	20	21	22	23	24	25	
26	27	28	29	30			

OCTOBER

M	T	W	Th	F	S	SU	Holidays and Events
				1	2		
3	4	5	6	7	8	9	2-Gandhi Jayanthi
10	11	12	13	14	15	16	5-12 Dussehra holidays
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	

NOVEMBER

M	T	W	Th	F	S	SU	Holidays and Events
	1	2	3	4	5	6	
7	8	9	10	11	12	13	
14	15	16	17	18	19	20	
21	22	23	24	25	26	27	
28	29	30	31				

DECEMBER

M	T	W	Th	F	S	SU	Holidays and Events
			1	2	3	4	
5	6	7	8	9	10	11	
12	13	14	15	16	17	18	25-Christmas
19	20	21	22	23	24	25	
26	27	28	29	30	31		

Course/Event	B.Tech II,III,IV I SEM
Commencement of class work	13th Jun 2016
I Spell Of instructions	13th Jun – 06th Aug 2016
I MID Examinations	08th -13th Aug 2016
II Spell of Instructions	16th Aug -04th Oct 2016
Dussehra Holidays	05th -12th Oct 2016
Supplementary Examinations	13th -26th Oct 2016
II Spell Continuation	27th Oct -03rd Nov 2016
II MID Examinations	04th -10th Nov 2016
Preparations & Practical Examinations	11th -17th Nov 2016
End Semester Exams	18th Nov -1st Dec 2016
Commencement of class work for the Next Semester	02nd Dec 2016

Instructions to the students
- Students should meet their Mentor on 3rd Thursday afternoon of every month.
- Should Maintain 85% attendance to avoid last minute hassles.

Instructions to the Faculty Members
- Mentor-Student Meeting on Third Thursday of every month
- Class Representative(CR) meeting with HOD on Second Friday of every month
- Teaching Diary, Attendance Register and attestation by HOD before 5th of every month

Proposed Dates for Conducting Institutional Committee Meetings
- Institute Academic Council Meeting-28th Nov `16
- Institute Advisory Committee Meeting- 10th Nov`16
- Institute Disciplinary Committee Meeting- as and when required.
- Institute Purchase Committee Meeting-9th Jul`16,14th Nov`16
- Institute Women's Welfare Cell Meeting-13th Aug`16,23rd Nov`16
- Internal Quality Assurance Cell (IQAC) Meeting-22nd Aug`16,10th Sep`16,29 Oct`16,7th Nov`16
- Institute Time Table Committee Meeting-18th Jul`16,24th Nov`16
- Institute Feedback Committee Meeting-1st Oct`16,15th Sep`16

Proposed Dates for Conducting Departmental Committee Meetings
- Department Academic Committee Meeting –First Friday of every month
- Department Advisory Committee Meeting-2nd JUL`16,19th Nov`16
- Department Purchase Committee Meeting-25th Apr`16,26th Nov`16
- Department Time Table Committee Meeting-11th Jun`16,21st Nov`16
- Department Institute-Industry Interaction Committee Meeting-13th Aug`16,26th Sep`16,15th Oct`16,12th Nov`16
- Department Professional Society Activities Committee Meeting-11th Aug`16,12th Nov`16
- Department Extra and Co-Curricular activities committee Meeting-8th Aug`16,4th Oct `16,24th Dec `16
- Department Disciplinary Committee Meeting- as and when required.
- Department Grievance & Redressel Committee Meeting- as and when required.