SELF-STUDY REPORT

Submitted to

National Assessment and Accreditation Council (NAAC)
March 2017

College of Engineering Trikaripur

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Director, CAPE

Dr. Vinod Pottakulath

Principal, College of Engineering Trikaripur

College of Engineering Trikaripur

VISION

To be a premier institution in education and research for moulding technically competent and socially committed professionals

MISSION

- **Promote interdisciplinary research and innovation so as to meet the current needs of industry and society**
- **Attract, nurture and retain the best faculty and technical manpower**
- **Provide state of the art facility for quality technical education**
- **Develop personality and professional skills of the students through interaction with alumni, academia and industry**

CONTENTS

Sl. No.	Title	Page Number
1	Preface	i
2	Abbreviations	ii
3	Executive Summary	1
4	Profile of the College	5
Criterion I-VII		
5	Criterion I: Curricular Aspects	13
6	Criterion II: Teaching-Learning and Evaluation	37
7	Criterion III: Research, Consultancy and Extension	55
8	Criterion IV: Infrastructure and Learning Resources	75
9	Criterion V: Student Support and Progression	96
10	Criterion VI: Governance, Leadership and Management	111
11	Criterion VII: Innovations and Best Practices	133
Department Evaluative Reports		
12	Computer Science and Engineering	138
13	Electronics and Communication Engineering	151
14	Electrical and Electronics Engineering	164
15	Information Technology	181
16	Civil Engineering	194
Annexure		
20	A. Declaration by the Head of the Institution	210
21	B. Certificate of Compliance	211
22	C. AICTE Approval Order	212
23	D. Affiliation Orders	215
24	E. Audited Statement of Accounts	225

PREFACE

College of Engineering Trikaripur is a fast growing engineering college in north Kerala. The campus is at Cheemeni, a close nature land in the south eastern tip of Kasaragod, 17 km away from Payyanur and 9 km away from Cheruvathur town. Nearest railway station is at Cheruvathur. College of Engineering Trikaripur was established in the year 2000 under the auspices of the Co-operative Academy of Professional Education (CAPE), an autonomous society under the Government of Kerala. From bud to blossom, we were honored to have the support of dignified personalities from both governmental and non-governmental sector.

The Co-operative Academy of Professional Education (CAPE), promoted by the Department of Co-operation, Government of Kerala was established in April 1999, as an autonomous society registered under the Travancore-Cochin Literary Scientific and Charitable societies act 1995, with the objective of setting up new professional institutions in the state in the fields of technical, medical and management education. Hon'ble Chief Minister of Kerala is the Chairman of the Co-operative Academy of Professional Education (Kerala) and the Hon'ble Minister for Co-operation is the Vice-Chairman. The Academy is governed by a board of governors and an executive committee with the Hon'ble minister for Co-operation, Government of Kerala as the Chairman and the Director as the Member Secretary.

College of Engineering Trikaripur is affiliated to Cochin University of Science and Technology (CUSAT) and APJ Abdul Kalam Technological University. The College is approved by the All India Council for Technical Education (AICTE). The student admissions are as per the list forwarded by the Controller of Entrance Examinations, Kerala, and the functioning of the college is as per the rules and regulations formulated by the Government of Kerala and CAPE. We offer under graduate programmes in five streams; Electronics and Communication Engineering, Electrical and Electronics Engineering, Computer Science and Engineering, Information Technology and Civil Engineering.

The vision of the institution is to be a premier institution in education and research for moulding technically competent and socially committed professionals. We are constantly striving towards promoting interdisciplinary research and innovation so as to meet the current needs of the industry and society; to attract, nurture and retain the best faculty and technical manpower; to provide state of the art facility for quality technical education; to develop personality and professional skills of the students through interaction with alumni, academia and industry.

As envisaged, College of Engineering Trikaripur has become a leading engineering college in north Kerala and is working to be a model learning centre in Kerala, catering to the needs of higher education in all sections of the society. The main objective of College of Engineering Trikaripur is to provide value based education to its students and to develop the overall personality of the students by enhancing their creativity, self-confidence, communication and leadership skills. The College is very pleased to submit this Self Study Report (SSR) for National Assessment and Accreditation Council (NAAC) assessment.

ABBREVIATIONS

AICTE	All India Council for Technical Education
AO	Administrative Officer
ASCE	American Society of Civil Engineers
BoG	Board of Governance
CA	Continuous Assessment
CAD	Computer Aided Design
CAI	Course Assessment Index
CAP	Centralized Allotment Process
CAPE	Cooperative Academy of Professional Education
CAS	Career Advancement Scheme
CAT	Common Admission Test
CC	Class Committee
CCF	Central Computing Facility
CE	Civil Engineering
CEE	Commissioner of Entrance Examinations
CERD	Centre for Engineering Research And Development
CETKR	College of Engineering Trikaripur
CGPA	Cumulative Grade Point Average
CO	Course Outcome
CPB	College Planning Board
CSE	Computer Science and Engineering
CSI	Computer Society of India
CSIR	Council of Scientific and Industrial Research
CUSAT	Cochin University of Science and Technology
DAC	Department Academic Committee
DELNET	Developing Library Network
DMC	Department Management Committee
DRDO	Defense Research and Development Organisation
DST	Department of Science and Technology
DTE	Director of Technical Education
ECE	Electronics and Communication Engineering
EEE	Electrical and Electronics Engineering
ESCI	Engineering Staff College of India
FDP	Faculty Development Programme
FET	Faculty of Engineering and Technology
FMC	Facility Management Committee
FS	Foreign Students
GA	Graduate Attribute
GATE	Graduate Aptitude Test in Engineering
GPA	Grade Point Average
HMC	Hostel Management Committee
HoD	Head of Department

ICT	Information and Communication Technologies
IEEE	Institute of Electrical and Electronics Engineers
IIM	Indian Institute of Management
IIT	Indian Institute of Technology
IT	Information Technology
ISRO	Indian Space Research Organization
ISTE	Indian Society for Technical Education
IQAC	Internal Quality Assurance Cell
KSEB	Kerala State Electricity Board
KTU	APJ Abdul Kalam Technological University
MHRD	Ministry of Human Resource Development
MoU	Memorandum of Understanding
NAAC	National Assessment and Accreditation Council
NBA	National Board of Accreditation
NIIST	National Institute for Interdisciplinary Science and Technology
NIT	National Institute of Technology
NITTTR	The National Institute of Technical Teachers Training and Research
NDT	Non Destructive Testing
NPTEL	National Programme on Technology Enhanced Learning
NSS	National Service Scheme
PEO	Programme Educational Objective
PO	Programme Outcome
PTA	Parent Teachers Association
QIP	Quality Improvement Programme
QEEE	Quality Enhancement in Engineering Education
STTP	Short Term Training Programme
TEQIP	Technical Education Quality Improvement Programme

EXECUTIVE SUMMARY

GENESIS OF THE INSTITUTION

The College of Engineering Trikaripur (CETKR), Cheemeni was started in the year 2000 with a mission to produce world class engineers in Electrical and Electronics Engineering, Electronics and Communication Engineering, Computer Science Engineering, Information Technology and Civil Engineering. The college has a current capacity to train 270 students every year. The college is poised for growth in the years to come.

Adequate infrastructure and laboratory facilities have been created over the years to meet the requirements for the existing curriculum. It is proposed to widen the horizon of these departments by modernizing existing laboratories, initiating research activity in thrust areas, and to develop relevant technology and services. These activities are expected to bring about considerable improvement in the quality of teaching, learning and research, besides fetching valuable resources in the spin-off. The above objectives are proposed to be achieved through creation of advanced facilities and trained man power.

PROGRESSION

College of Engineering Trikaripur is a fast growing Engineering college in north Kerala. It offers undergraduate programmes, leading to the award of B.Tech degree of the Cochin University of Science And Technology and APJ Abdul Kalam Technological University. The institution was established in the year 2000 under the auspices of the Co-operative Academy of Professional Education (CAPE), an autonomous society under the Government of Kerala. The institution provides an environment conducive to technical education and thereby bringing out the innate talents and professionalism in each of the students. A sense of social commitment and traditional value is imbibed in the budding professionals so that they can cater to the social needs.

In the plan of action to be pursued by the **Electrical and Electronics Engineering** department, the major focus is on strengthening of laboratory facilities to meet the demand of both academic and industrial segments. To realize these objectives, annexing two more labs viz., Digital Electronics Lab and Power Electronics Lab to the existing ones is mooted. The existing labs are also to be modernized to cope with modern technology. Plans are also afoot to conduct training programs in the area of trouble shooting and maintenance of thyristor drive panels, energy auditing, trouble shooting and maintenance of transformers, cables, LT motors, generators etc.

The department intends to start a Post Graduate program in Engineering with a major in Power System Engineering. As part of continuing education program, it is proposed to conduct training programs for industrial workers and technician in the areas of erection and commissioning of electrical equipment, electrical wiring and motor winding etc. It is also proposed to conduct consultancy services and R&D activities.

The department of **Electronics and Communication Engineering** was started in 2000 with sanctioned intake of sixty students. The department has identified

Communication and Signal/Image Processing as two key areas to pursue research. It is also proposed to modernize the existing electronics circuit laboratory, microprocessor and computer laboratory to support the proposed upgradation scheme, and to improve teaching, training and learning facilities.

As a long term vision, the department plans to introduce a post graduate course in Opto-Electronics and Communication Engineering. The department also proposes to conduct research program in Micro Controller based instrumentation to develop useful products like speech and hearing aids. The departments also aims to attain a level of academic excellence offering doctoral programs and undertaking R&D projects in the latest fields as a long term objective.

The department of **Computer Science and Engineering** was started in 2000 with sanctioned intake of sixty students. The department has six labs and a seminar hall. In the plan of action to be pursued by the department, the key area is to modernize all the existing labs and annex a hardware lab to these. It is proposed to start a post graduate program in Software Engineering to meet the increased demand in this area. The department has a plan start a continuing education cell. Plans are also in full swing to provide job oriented training for the students to increase the employability of the new buds.

The department of **Information Technology** is functioning in the college since 2000 with a sanctioned intake of 30 students. The main area of interest is to modernize the entire existing labs with latest software and hardware. It is planned to setup a computer network lab with the latest networking devices. The multimedia project lab functioning under the department is to be upgraded with modern audio visual technology and latest animation software.

The department is determined to conduct job oriented training program in web technologies, database management system and networking to enable the students to meet the requirements in this field.

The **Civil Engineering** department is started in 2009 with an annual intake of 60 students. As a traditional branch of engineering study, the department has an exclusive and unique vision to mould the students with state-of- the- art technologies.

The key focus is to set up all laboratories viz. Strength of Materials Lab, Fluid Mechanics Lab, Transportation Engineering Lab, Geotechnical Engineering Lab, Construction and Structural Engineering Lab, Building Technology and N.D.T. Lab and CAD lab. It is also proposed to modernize the existing Survey Lab with the latest equipment to familiarize the students with the modern surveying methods. The department has planned to increase the consultancy/testing services by modernizing the available labs.

As a long term vision, the department has planned to conduct continuing education programs in the areas of modern surveying methods and computer aided civil drafting.

STRENGTHS

- Top position in North Kerala based on KTU ranking.
- Improved pass percentage of the students.
- Land available for future expansion.
- Well connected to nearby towns.
- All faculty members are well trained from institutions like IIT and IIM.
- Remedial classes offered for academically weak students.

- Faculty student ratio 1:15 is maintained.
- Adequate lab facilities for running the current programs.
- Majority of the faculty members are young and energetic.
- Government undertaking Institution.
- Well established training and placement cell.
- Experience in conducting faculty and student oriented programs.
- Hostel facility available for all the required girls.
- Equipped with various student clubs and facilities for extracurricular activities.
- Facilities for competitive online exams.
- Membership in various professional bodies like IEEE, ISTE, CSI.

ACADEMICS

- Consistently produce top rank holders in University examinations in most of the branches.
- Effectively implements curriculum through Information and Communication Technologies (ICT) based interactive practices, tutorial sessions and Quality Enhancement in Engineering Education (QEEE) courses.
- Keeps up well structured mentoring system to guide, support and motivate students in academic and personal matters.
- Maintains well-equipped state-of-the-art laboratory facilities.
- Regularly conducts seminars and workshops to ensure the coverage of curriculum gaps.
- Conduct conferences & seminars of technical interest, technical workshops, technical tours, meetings, quiz on a regular basis, motivating the students to keep pace with the latest advancements in technology.

FACULTY MEMBERS

- Experienced and dedicated faculty members with commitment to quality and ethical values.
- Five faculty members are Ph.D. holders. They are from Electrical, Civil engineering and Applied science departments. Some faculty members are pursuing Ph.D.
- Faculty members serve as technical members in various local and government bodies.
- Faculty members regularly participate in Seminars, Workshops, FDPs, STTPs and Conferences, which help them, improve research aptitude and teaching skills.

RESEARCH

- International and national conferences, Research Colloquiums and workshops were conducted with a view to interact with the eminent resource persons and to inculcate research culture among faculty and students.

INTERACTION WITH INDUSTRY

- College of Engineering Trikaripur has Memorandum of Understanding (MoU) with organizations/ industries of national and international repute.
- Seminars and workshops are conducted with the participation of experts from industry, to bridge the gap between industry and academia.
- Industrial training and industrial visits help the students to supplement theoretical knowledge with practical experience and thereby improving their technical skills.

WEAKNESSES

- PhD holders are few in numbers.
- Less focus on research activities
- Campus Functioning is limited from 9am to 4pm.
- No PG programs.
- Intake of students with varying academic calibre.
- Poor communication skill of students.
- Involvement of Alumni in college activities is not satisfactory.
- Located away from Industry area.
- Student management system not automated.
- Source of fund for campus development is limited.

CHALLENGES

- Emerge of local private colleges.
- Declining enrolment in engineering.
- Insufficient availability of the qualified faculties.
- Lack of industry- institution partnership.

FUTURE PLANS

- Flourish as a Centre of Excellence in Education and Research.
- Ensure campus placements to all students with emphasis on core companies.
- Start more post graduate programmes in various specializations.
- Enhance tie-up with industries (MoU)
- Improve the research activities of the institute at par with the institutes of national reputation.
- Inculcate the spirit of entrepreneurship in students to venture in to startups and companies.

PROFILE OF THE COLLEGE

1. Profile of the Affiliated / Constituent College

1. Name and Address of the College:

Name :	**COLLEGE OF ENGINEERING TRIKARIPUR**		
Address :	Cheemeni P.O., Cheruvathur(Via.)		
City :	Kasargod	Pin:671313	State : KERALA
Website :	www.cetkr.ac.in		

For Communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. Vinod Pottakkulath	O: 0467 2250377 O: 0467 2250977	+918289890377	0467 2250750	principal@cetkr.ac.in

2. Status of the Institution:

Affiliated College	✓
Constituent College	-
Any other(Specify)	-

3. Type of the Institution:

a. By Gender

For Men	-
For Women	-
Co-education	✓

b. By Shift

Regular	✓
Day	-
Evening	-

4. Is it a recognized minority Institution?

Yes	-
No	✓

5. Source of funding

Government	-

Grant-in-aid	✓
Self-financed	-
Any other	-

6. a. Date of Establishment of the College: 01/09/2000

b. University to which the College is affiliated/or which governs the College (If it is a Constituent College)

(i) Cochin University of Science and Technology

(ii) A.P.J. Abdul Kalam Technological University

c. 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	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
AICTE	1-6182378	30-04-2016	2016-17	Yearly approval

7. Does the affiliating University Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?

Yes [ ] No [√]

If yes, has the College applied for availing the autonomous status?

Yes [ ] No [ ]

8. Is the college recognized:

a) by UGC as a College with Potential for Excellence (CPE)?

Yes [ ] No [√]

If yes, date of recognition: …… (dd/mm/yyyy)

b) for its performance by any other governmental agency?

Yes [ ] No [√]

If yes, name of the agency …… and

Date of recognition:

……(dd/mm/yyyy)

9. Location of the campus and area in sq.m.:

Location *	Rural
Campus area in sq. m.	1,03,820
Built up area in sq. m.	16,400

(* 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
  - Auditorium- 900 seating capacity
  - Seminar hall -160 seating capacity with Air conditioning
  - Seminal hall-60 seating capacity each for four department
- Sports facilities
  - Play ground - Yes
- Football field/Cricket/Athletic stadium (1 No.)
- Volleyball Court (1 No.)
- Basket ball Court (1 No.)
- Shuttle badminton court (1 court)-Indoor
- Table Tennis
- Hostel

Boys hostel (Rented)
- Number of hostels- 1
- Number of inmates- 13

Girls' hostel
- Number of hostels - 1
- Number of inmates- 116

- Facilities
  - Cafeteria-
    - Yes. Canteen is available inside the campus, where breakfast, lunch, tea and snacks are available during working days
    - A mini- cool drinks/snacks outlet is also available in the college campus
  - Health centre-
    - Sick room is provided for students
    - First aid facilities are available at all labs and hostels
    - Health facility is easily accessible from the college
    - Qualified doctor is available on call
    - Ambulance is available on phone call
    - Emergency vehicle and driver available round the clock
    - Cheemeni specialty clinic is 500 m from college
    - Government Hospital is 11 km from college
    - KAH Memorial Hospital is 10 km away from college

- Facilities like banking, post office, bookshops:
  - 2 ATMs in close proximity to campus
  - Post office located adjacent to campus
  - Book shop of technical books is available inside the campus
- Transport facilities to cater the needs of students and staff
  - College bus- 8 Nos.
  - Public transport facility available in front of the college
  - Distance to Cheemeni Railway Station is less than 11 km from the campus and Payannur railway Station is 17 km from the campus. The nearest airport is Mangalore International Airport which is located at a distance of 110 km.
- Generator or other facility for management/regulation of electricity and voltage
  - One diesel generators are available (63 kVA)
  - UPS is available in all computer labs and departments

11. Details of programs offered by the college (Give data for current academic year):

Sl. No.	Programme Level	Name of the Programme/ Course	Duration (years)	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
1	Under-Graduate	Civil Engineering	4	12th	English	66	63
2	Under-Graduate	Computer Science and Engineering	4	12th	English	66	52
3	Under-Graduate	Electrical and Electronics Engineering	4	12th	English	66	39
4	Under-Graduate	Electronics and Communication	4	12th	English	66	33
5	Under-Graduate	Information Technology	4	12th	English	33	13

12. Does the college offer self-financed Programs?

Yes [√] No [ ]

If yes, how many? [5]

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

Yes [√] No [ ]

If yes, how many? [1]

14. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programs. Similarly, do not list the departments offering common compulsory subjects for all the programs like English, regional languages etc.)

Departments	UG
Civil Engineering	B.Tech in Civil Engineering
Electrical & Electronics Engineering	B.Tech in Electrical & Electronics Engineering
Electronics & Communication Engineering	B.Tech in Electronics & Communication Engineering
Information & Technology	B.Tech in Information & Technology
Computer Science & Engineering	B.Tech in Computer Science & Engineering

15. Number of Programs offered under (Program means a degree course like BA, BSc, MA, M.Com…)

a	Annual System	-
b	Semester System	5
c	Trimester System	-

16. Number of Programmes with : NA

a	Choice Based Credit System	-
b	Inter/Multi disciplinary Approach	-
c	Any other (specify and provide details)	-

17. Does the college offer UG and/or PG programs in Teacher Education?

Yes [ ] No [√]

18. Does the college offer UG or PG programme in Physical Education?

Yes [ ] No [√]

19. Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor					
	*M	*F	*M	*F	*M	*F	*M	F*	*M	*F
Sanctioned by the UGC / University / State			2	1	25	14	3	5	9	2
Adhoc					5	28	3	12		
Sanctioned by the Management/ society							2	6		
Yet to recruit										

*M-Male *F-Female

20. Qualifications of the teaching staff:

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
Ph.D			1		1	1	3
M.Tech/M.Arch			1	1	24	13	39
				Total			42
AD HOC teachers							
Ph.D					1		1
M.Tech/M.Sc					5	28	30
				Total			31

21. Number of Visiting Faculty / Guest Faculty engaged with the College :

01

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

Categories	2013-14		2014-15		2015-16		2016-17		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
SC	37	17	33	15	25	13	16	15	171
ST	0	1	1	0	1	2	2	2	9
OBC	288	423	259	431	251	384	265	331	2632
General	159	187	146	164	124	153	110	144	1187
Total	484	628	439	610	401	552	393	492	**3999**

23. Details on students enrollment in the college during the current academic year (First year admission2016-17):

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	200				
Students from other states of India					
POI students					
Foreign students					
Total	200				

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

UG 0% PG %

25. Unit Cost of Education (Unit cost=total annual recurring expenditure (actual) divided by total number of students enrolled 2015-2016)

(a) including the salary component	**42885.41**
(b) excluding the salary component	**4069.94**

26. Does the college offer any programme/s in distance education mode (DEP)?

Yes No √

27. Student -Teacher ratio for each of the programme/course offered :

UG

Year	Civil	Electrical & Electronics	Electronics & Communication	Computer Science	Information & Technology
12-13	13.31	20.5	20.25	16.16	9.57
13-14	11.61	18.3	13.38	22.44	9
14-15	14.14	16	15.06	19.8	8.62
15-16	14.07	14.63	15.23	16.3	4.44

28. Is the college applying for:

Accreditation: Cycle 1 √

Re-Assessment: -

(Cycle 1 refers to first accreditation and Cycle2, Cycle 3 and Cycle 4 refers to re-accreditation)

29. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only) NA

30. Number of working days during the last academic year:

233

31. Number of teaching days during the last academic year:

(Teaching days means days on which lectures were engaged excluding the examination days)

225

32. Date of establishment of Internal Quality Assurance Cell (IQAC):

IQAC 13-10-2016(dd/mm/yyyy)

33. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC: NA

34. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information):

Faculty posts are created, sanctioned and approved by the Government of Kerala as per norms set for the same. The institute does not have any direct role in this matter. All the posts sanctioned by the Government are filled by the Institute.

CRITERION 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.

Vision of the Institution

To be a premier institution in education and research for moulding technically competent and socially committed professionals.

Mission of the Institution

- Promote interdisciplinary research and innovation so as to meet the current needs of industry and society.
- Attract, nurture and retain the best faculty and technical manpower.
- Provide state of art facility for quality technical education.
- Develop personality and professional skills of the students through interaction with alumni academia and industry.

Objectives of the Institution

- Excel in all aspects of academic activity and produce socially responsible professionals.
- To create an environment for effective teaching-learning by encouraging the students and faculty to develop their intellectual curiosity, and scientific research capability.
- Regular monitoring and controlling the quality of all academic programs.
- To ensure the successful performance of the students in multidisciplinary ventures by developing their academic, co-curricular and extracurricular skills.

The Vision and Mission of the Institute are communicated in the following ways:

- Published in the webpage of the Institution (www.cetkr.ac.in). This is regularly visited by students, parents and faculty and periodically by the other stakeholders of the Institute.
- As exhibits, in classrooms, laboratories, staff rooms and other prime locations in

the Institute. This is continuously visible to the students and faculty, and also to the parents who visit the campus.

- Printed on laboratory manuals and assignment records. This will help the students, technical staff and faculty to be continuously reminded of the Vision and Mission of the Institute.
- Highlighted during faculty, PTA and alumni meetings, where the parents, alumni and other stakeholders are exposed to the Vision and Mission of the Institute.

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 institution meticulously plans for effective implementation of the curriculum. The process is given below:

- In the beginning of the academic semester, the respective teachers downloading their academic calendars (semester-wise academic schedule) comprising the entire schedule for the semester.
- Before the end of current semester, the subjects for next semester from curriculum are given to the faculty. The subject priorities of faculty are presented before the Head of the Department(HOD) and approved. Options are given to students for selecting the elective subject, which in turn is consolidated by the Tutor and presented to HOD.
- The academic committees discuss and plan overall semester activities.
- The opted subjects are allocated to faculty based on the field of specialization, number of times subjects taught and experience.
- Time timetable committee prepares timetable for each class and distributing to the respective faculty members.
- The concerned faculty for each subject prepares a course plan giving the topics of the syllabus and proposed date of completion of the topic.
- Course files are prepared and maintained by the faculty which includes syllabus, academic calendar, year calendar, course plan, teaching materials such as tutorials, assignments, internal test question papers, answer key, scrutiny form, previous year University question papers etc. The concerned faculty for each subject prepares a detailed lesson plan giving the units of the syllabus and proposed date of completion of the unit.
- Apart from regular classes, bridge courses and placement trainings are conducted to enhance the students succeed in their graduate level studies, enhance Problem Solving skill, Analytical Skills, Communication Skill and Presentation Skill.
- Workshops and expert talks are conducted to expertise students in concerned areas.
- The class/course committee monitors the conduct of the class/course, adherence to the course plan and time schedule, completion of the syllabus, and take suitable remedial actions regarding the conduct of the course.
- The Department approves the course plan for various subjects and Question paper screening committee scrutinizes the question papers submitted for internal examinations.
- The class committee monitors the conduct of all the subjects, overall performance of the students, faculty feedback, and other grievances faced by the students and

take suitable remedial actions at the appropriate time.

- Placement coordinator handles placement programs and industrial visits.
- Faculty evaluations are taken from students and analysis is carried out for enhancing the teaching skills of the faculty.
- During PTA meeting attendance and marks of the students distributed to parents.
- Tutorial sessions are conducted to improve the problem solving skill and knowledge of the students.
- Remedial classes are given to the weaker student after the working hours of college.
- Institute has student IEEE chapters to keep pace with research and recent advancements.
- The progress of final year project is monitored regularly and the progress report is maintained by the respective guide.
- Faculty members are permitted to attend various training programs such as faculty development programs in various prestigious institutions like IITs and IIMs to update their knowledge base and improve teaching skills.
- For internal examination the examination cell Schedule and conduct examinations as per the college academic calendar by arranging examination halls and invigilators for the smooth conduct of examinations.
- Finally, at the end of each semester, University examinations are conducted to evaluate knowledge of students in the subject.
- Stock verification of laboratories is done to identify instruments which require repair or are obsolete.

Name	Programme	Venue	From
Shamal P K	Workshop on Linux operating system		
Shinu Jacob	Works Shop on J2EE MVC Frame Work at CE Thalassery	CE Thalassery	
Prasanth m	Workshop on Robotics at CE Thalassery	CE Thalassery	
Shyni T V	FDP on Advances in Surveying and Thrir applications CE Thalassery	CE Thalassery	
Sangeetha C	Counseling and Guidence Cell		
Sreekanth P	Matlab -Math works at IIHT Calicut	IIHT Calicut	
Smt.Devidath	FDP on Telecom Technologies at BSNL Trivandrum	BSNL Trivandrum	
Sureshkumar A V	Matlab -Math works at	IIHT Calicut	
Ratheesh T	Matlab -Math works	IIHT Calicut	
Mahesh V V	Workshop on Electronics Design Tools and Its application	CUSAT	
Naveena A K	STTP on Research Methodology	GEC Kannur	
Mahesh V V	Workshop on Electronics Design Tools and Its application	CUSAT	
Smt.Devidath	FDP on Telecom Technologies	BSNL Trivandrum	
Lincy Koshi	FDP on Structural Engineering and Geo Technical Engineering	CE Kidangoor	

Naveena A K	National Workshop on Pattern Recognition and Applications in machine Inteligence	Kannur University	
Shamal P K	Accademic Leadership Pgm for TEQIP	IIM Kozhikode	25-08-2014
Anoop P V	Accademic Leadership Pgm for TEQIP	IIM Kozhikode	25-08-2014
Priya M	Accademic Leadership Pgm for TEQIP	IIM Kozhikode	25-08-2014
Sudheesh N	Advanced Welding Technology	Coimbatore Institute Of Technology Coimbatore	01-12-2014
Ratheesh T	Advancements in Analog Circuits	Govt. Engg. College Kannur	26-11-2014
Sureshkumar A V	Advancements in Analog Circuits	Govt. Engg. College Kannur	26-11-2014
Jasmi M S	Advances in smart grid integrations	Saintgits Colleg of Engg Kottayam	28-04-2014
Sheena K	Cloud Computing		08-12-2014
Abdul Latheef T	Computer Networking and Mangement	Govt. Engg. College Kozhikode	01-12-2014
Jijiya R P	Deep drive Faculty Enablement pgm	Infosys SEZ campus Mangalore	15-12-2014
Shreya Mohan	Deep drive Faculty Enablement pgm	Infosys SEZ campus Mangalore	15-12-2014
Sigma Sunny T	Design, Constuction and Maitenance	Roads at COE Trivandrum	07-01-2015
Anoop P V	Design, Constuction and Maitenance	Roads at COE Trivandrum	18-11-2014
Shamal P K	Design, Constuction and Maitenance	Roads at COE Trivandrum	18-11-2014
Jyothi K	DTE Sponsored Short term Pgm on System Design Using Progammable Logic and Embedded Processing Organaised	Govt Engineering College Kannur	27-01-2014
Binesh Mohan P	Earthing Practies in Electrical Installations	ESCI Hyderabad	28-10-2014
Sreekanth P	FDP on Advanced Control: Thoery and Applications held	National Institute of Technology Calicut	08-12-2013
Anoop P V	Geographic Information Systems with Web Application	Chinmaya Institute of Technology Kannur	07-07-2014

Shabana Salam	Geographic Information Systems with Web Application	Chinmaya Institute of Technology Kannur	07-07-2014
Sheena K	Geographic Information Systems with Web Application	Chinmaya Institute of Technology Kannur	07-07-2014
Rani Oomman Panicker	Information Security and Cryptography	National Institute Of Technology Karnataka, Surathkal	15-09-2014
Sujith D K	Lab View Programme For Engineering Research Organaised	Govt College Of Engg.Kannur	19-05-2014
Sreekanth P	Lab View Programme For Engineering Research Organaised	Govt College Of Engg.Kannur	19-05-2014
Abdul Latheef T	Linux Server Administration	ESCI Hyderabad	18-08-2014
Sunish K A	Linux Server Administration at Hyderabad	ESCI Hyderabad	18-08-2014
Abdul Latheef T	Linux Server Administration at Hyderabad Course Fee	ESCI Hyderabad	18-08-2014
Sunish K A	Linux Server Administration at Hyderabad Course Fee	ESCI Hyderabad	18-08-2014
Rani Oomman Panicker	Mobile Health	NIT Surathkal Karnataka	21-11-2014
Shamal P K	Network security Administration	ESCI Hyderabad	24-11-2014
Rafeekh A P	Network security Administration	ESCI Hyderabad	24-11-2014
Dayesh K G	Open Sourse Hardware with state of the art hands experiments	COE Karunagapally	23-07-2014
Arun P L	Outcome Based Leaning and Teaching	CET School of Management Trivandrum	31-10-2014
Shamal P K	Providing access to computers from Tier2/Tier3 cities	Govt. Engg. College Kannur	18-11-2014
Rafeekh A P	Providing access to computers from Tier2/Tier3 cities	Govt. Engg. College Kannur	18-11-2014
Sekhar J	Recent Advances in Civil Engineering	COE Vadakara	06-01-2015
Anoop K T	Reg. Fee for Attending Workshop on Recent Advances in Pumbs and Hydraulic systems	College of Engg.Thalassery	11-10-2013
Kunhiraman A	Reliability Applications in Power Distribution Systems	Bangalore	21-11-2014

Sujith D K	Reliability Applications in Power Distribution Systems	Bangalore	21-11-2014
Rafeekh A P	Research Direction towards Wired and Wireless Networking Technologies	Govt College Of Engg , Baraton Hill Trivandrum	04-08-2014
Anoop P V	Research Direction towards Wired and Wireless Networking Technologies	Govt College Of Engg , Baraton Hill Trivandrum	04-08-2014
Sekhar J	Residential Training Pgm	KIED Kalamassery	12-08-2014
Shabna Salam	Seminar on Frontier in Machine Learning and Speech Processing	Central University at Kasargod	06-02-2015
Sekhar J	Seminar On Recent Advance In Geotechnical and trasportation Enginering	LBS Institute Of Technology For women Poojappura	03-02-2014
Mahesh V V	Signal Processing with simulink,Generating HDL code from Simulink	IITM Trivandrum	23-06-2014
Praseetha K	Simultation Software In Electrical Engineering	Govt College of Engg. Kannur	07-07-2014
Bineesh Mohan	Smart Grid Technology and Applications	Coimbatore	10-10-2014
Sujith D K	Smart Grid Technology and Applications	Coimbatore	10-10-2014
Dona Maria Joseph	STTP on Probability in Engineerimg	Govt College of Engg. Kannur	27-01-2015
Shyni.T.V	STTP on Probability in Engineerimg	Govt College of Engg. Kannur	27-01-2015
Dona Maria Joseph	STTP on Structural Analysis and Design Using STADD at COE Kannur- Reg. fee	Govt College of Engg. Kannur	02-02-2015
Mahesh V V	STTP On System Design using Programmable Logic and Embedded Processors Organaised By Govt Engineering College Kannur	Govt College of Engg. Kannur	27-01-2014
Anil K	Study and Maintenance of Electrical And Electronics Lab Equipments	COE Vadakara	04-11-2013
Dayesh K G	Study and Maintenance of Electrical And Electronics Lab Equipments	COE Vadakara	04-11-2013
Ratheesh T	system design using programable logics and embedded processores	Govt College of Engg. Kannur	27-01-2014
Binesh Mohan	Training Pgm on PLC/SCADA	IPCS Automation Cochin	23-06-2014

Fousiya K	Training Pgm on Recent Trends in Power Electronics and Power Systems	Govt College of Engg. Kannur	12-03-2014
Praseetha K	Training Pgm on Recent Trends in Power Electronics and Power Systems	Govt College of Engg. Kannur	12-03-2014
Rafeekh A P	Windows 2012 Server Administration	ESCI Hyderabad	19-01-2015
Sahamal P K	Workshop on Application of fuzzy Logic and Graphic theory in Engineering	College of Engineering Thalassery	03-08-2013
Sudheesh N	Workshop On Good Governance		17-03-2014
Arun M S	Workshop On Quality Enhancement Engineering Education Organised	IIT Madrass	17-12-2013
GireeshKumar A	Workshop on Wind Energy Technology	NIWE Chennai	18-03-2015
Sekhar.J	Workshop on Stress assisted Environmental Damage in Structural Materials	IITM Chennai	27-02-2015
Arun P L	Workshop on Quality initiatives in technical & Higher Educational Institutions	ESCI Hyderabad	10-03-2015
Ratheesh.T	Workshop on Quality initiatives in technical & Higher Educational Institutions	ESCI Hyderabad	10-03-2015
Sujith.D.K	Workshop on Cyber Security for Power Engineers	CPRI Bengaluru	16-03-2015
GireeshKumar.A	Workshop series in “Research Perspectives On Solar PV Systems”	PSG College of Technology Coimbatore	26-03-2015
Binesh Mohan.P	Workshop on Cyber Security for Power Engineers	CPRI Bengaluru	16-03-2015
Sreekanth.P	Failure of Distrubution Transformers and Remedial Measures	ESCI,Hyderabad	27-05-2015
Binesh Mohan	Failure of Distrubution Transformers and Remedial Measures	ESCI,Hyderabad	27-05-2015
Gireeshkumar.A,A.P in EEE	International conference on Smartgrid Technologies (ICSGT2015)	Amria School of Engg. Coimbatore	06-08-2015
Binesh Mohan.P, A.P in EEE	International workshop on Solar voltanic power systems for residential, commercial & off Grid Applications	Rajagiri School of Engg. Cochin	22-07-2015
Gireeshkumar.A,A.P in EEE	International workshop on Solar voltanic power systems for residential, commercial & off Grid Applications	Rajagiri School of Engg. Cochin	22-07-2015
Gireeshkumar.A	National Conference on Emerging Technologies 2015	Barton Hill Trivandrum	25-09-2015
Swathimon N	FDP onPCBDesigh and Fabrication Technologies	COE karunagapally	16-09-2015
Dayesh K.G	FDP onPCBDesigh and Fabrication	COE	16-09-2015

	Technologies	karunagapally	
Gireeshkumar .A	Workshop on Analysis using R	PSG college Coimbatore	10-10-2015
Gireeshkumar .A,A.P in EEE	Professional Development Program on Nuclear Power & Nuclear fuel cycle program of India	ESCI Hyderabad	12-05-2015
Binesh Mohan P	Special training Program on Power Industry-Familiarisation	PETRARC,Molamattom	15-10-2015
Cyriac Bernard	Special training Program on Power Industry-Familiarisation	PETRARC,Molamattom	15-10-2015
Sreejith V Nair	Special training Program on Power Industry-Familiarisation	PETRARC,Molamattom	15-10-2015
Bhasura	Workshop on Cyberspace Security : Digital India Context	NITK Surathakal	17-10-2015
Sahrada P	Workshop on Cyberspace Security : Digital India Context	NITK Surathakal	17-10-2015
Sekhar J	workshop on Evaluation of soil Parameters for Numerical Modeling	IIT Madras	04-07-2015

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

- The Institute/University provides its fullest support by providing all the facilities required by the teachers for effectively translating the curriculum and improving teaching practices.
- The University provides syllabus for each course, guidelines for practical's and books for references, which help teachers in proper understanding the layout of their subject. Examination schedules will be displayed on the website of the University. Based on this, curriculum can be planned effectively through course plans.
- The institute encourages the faculty members to participate in national and international seminars, FDPs and workshops for enhancing their knowledge. Further, in-house workshops are organized to disseminate the inputs derived from the above orientation. FDPs and expert lectures in specified areas are also conducted.
- Faculty members are also deputed for higher studies under QIP in various Institutes.
- The institute provides smart classrooms and internet facility in the campus for effective teaching.
- A Digital Library consisting of electronic resources such as e-journals are available in the campus.
- Previous year's question papers are available in the central library.
- Teachers are appraised and guided through regular faculty meetings. The issues regarding the distribution of workload, organization of programs, workshops, students activities are discussed for the effective implementation of the curriculum.
- The massive renovation of the college infrastructure as well as the up gradation of

laboratory facilities in the recent years ensures that no impediments remain in the way of efficient teaching

- The institute provides ample supply of devices and facilities like class room projectors, laptops to staff members for the most efficient academic curriculum delivery.
- Training programmes are given to non-teaching staff.

Faculty members are continuously groomed through various Faculty Development Programs (FDPs), subject area training programs/pedagogical trainings, workshops, seminars, and Continuing Education Programs by expert faculty. This type of FDPs/workshops help the faculty to get acquainted with the latest developments in their fields and the best practices in the teaching, learning process in institutes of national repute. The expenses incurred by the faculty members for attending these types of programs are fully or partly met by the institution.

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.

- The institute provides all supports required for effective implementation of the curriculum through excellent infrastructure and financial support.
- Effective delivery of curriculum is achieved through projectors, power point presentations and black board.
- Provision of special/remedial classes for slow-learners.
- Feedback on faculty performance obtained from the students are intimated to faculty and corrective measures are taken.
- The attendance of each student is regularly monitored and monthly assessed to ensure students maintain the required attendance percentage prescribed by the University.
- Expert talks and workshops are conducted for the academic enrichment of students and faculty members.
- Permission is granted to students for using laboratories after college regular working hours.
- Students are motivated to undertake industrial visits to obtain first-hand knowledge in various engineering aspects.

The following committees have been formed for the effective execution of the curriculum.

- **Examination Cell**: Conducts the University examinations as per rules and schedule provided by the University. Schedule and conduct internal examinations as per the college academic calendar by arranging examination halls and invigilators for the smooth conduct of examinations. Report to the authorities any cases of malpractice by the students during the examination.
- **Anti-Ragging Cell**: Ensure a ragging free campus by implementing the directions from regulatory bodies. Counseling is given at the beginning of each academic year. Formulate Anti Ragging Squads and supervise their activity. The entire campus is under the supervision of anti ragging squad(campus, collge canteen, hostels and buses).
- **Entrepreneurship Cell (EC)**: The college has set up an Entrepreneurship Development Cell for promoting entrepreneurship.The college has also setup an

innovation club to enhance the creative idea of students. Expert talk/workshops are conducted to enhance the skill of students under III Cell

Infrastructure facility of the college is open to students for testing their ideas under a Guide.

- **Class Committee and Course Committee**: Monitors the conduct of the courses, adherence to the course plan and time schedule, completion of the syllabus and difficulties faced by the students and suggest suitable remedial actions at the appropriate time. The functioning of Course and Class Committees monitored by the HOD.
- **Academic committee**: To discuss and plan overall semester activities.
- **Time table committee**: To prepare timetable for each class and distributing to the respective faculty members.
- **Discipline committee**: To take actions to settle down the dispute between students and student organizations. Thus enabling the smooth functioning of the college.
- **Question paper screening committee**: To scrutinize the question papers submitted for internal examinations.
- **Grievance Committee**: Grievances of students and faculties are discussed by the members of this cell.
- **College Council**: The overall decisions regarding academic schedule, series examinations, arts festivals etc are taken by College Counsil.
- **Department Cell**: All the department activities are monitored by the Department Cell.
- **Research Council**: Review R&D activities and research programs and advise on future directions to formulate guidelines on research integrity. Approve research proposals submitted by faculty for onward transmission to various funding agencies.
- **Energy Management Cell**: Formulate procedures to utilize renewable energy sources. Empower and motivate staff, students and stakeholders through appropriate awareness programs to reduce energy consumption.

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

The Institute interacts with industry, research bodies and University for effective operationalisation of the curriculum. Interaction with alumni from industries and expert lectures from reputed organizations are organized. They guide students regarding career option in terms of research and employment opportunities in the industry.

Industry

Experts from industries are invited for presentations and discussions on relevant topics within and beyond the syllabus. Students are required to complete industrial visits in industrial organizations as part of their curriculum. Such visits give the students an exposure in understanding the various activities carried out in industries. These activities are under III cell(Industry institution interaction cell). On completion of the industrial visit, the students are required to submit a report. To keep abreast with the recent trends in the industries and to fulfill the requirements of the industries and for better placements, the following MoUs have been signed.

MoU's

- Infosys campus connect
- ICT Academy

Various curriculum development workshops are conducted at the Institute to discuss the contents of the curriculum. Experts from industry are invited to participate in these workshops.

Research Bodies

The Institute encourages faculty and students to take up projects sponsored by government funding agencies like KSCSTE. faculty members are members of the professional bodies like IEEE, CSI, ISTE,IEI,IGS and attend conferences, which in turn help them in effective operationalization of the curriculum. Colloquium, National and International conferences are conducted under R&D committee.

University

Faculty members regularly keep in touch with syllabus revision, question paper setting, University examination answer script valuation at the affiliating universities and keep themselves updated with the latest information regarding their respective subjects.

The details of the International Conferences on R&D topics by the institution are listed in Table 1.1.5

Table 1.1.5 International Conferences on R&D topics Conferences attended

Name	Programme	Venue	Date
Joby James	International conference on Control,Communication and computing-2013	COE Trivandrum	13-12-2013
Priya M	International conference on Control,Communication and computing-2014	COE Trivandrum	13-12-2013
Gireeshkumar. A,A.P in EEE	International conference on Smartgrid Technologies (ICSGT2015)	Amria School of Engg. Coimbatore	06-08-2015
Binesh Mohan.P, A.P in EEE	International workshop on Solar voltanic power systems for residential, commercial & off Grid Applications	Rajagiri School of Engg. Cochin	22-07-2015

Gireeshkumar. A,A.P in EEE	International workshop on Solar voltanic power systems for residential, commercial & off Grid Applications	Rajagiri School of Engg. Cochin	22-07-2015
Gireeshkumar. A	National Conference on Emerging Technologies 2015	Barton Hill Trivandrum	25-09-2015
Sigma Sunny	INC on Recent Advances in CE	CUSAT	14-01-2016
Laya Raj	INC on Recent Advances in CE at CUSAT	CUSAT	14-01-2016
Abey E Thomas	Colloquium on Environmental and water resources engineering at	RIT kottayam	22-10-2016
Winsor Raj,AP in CE	Colloquium on Environmental and water resources engineering	RIT kottayam	22-10-2016
Sreekanth P	IEEE Conference on Emerging Devices and smart systems at	Mahendra engg. College Tamilnadu	04-03-2016
Rani Oomman Panicker	INC on IEEE Discover 2016 NIT Calicut		13-08-2016
Naveena A K	INC on Next generation Intelligent systems at RIT Kottayam		01-09-2016
Naveena A K	National Conference on "nCORETech 16" at LBS College of Engineering Kasaragod		10-02-2016
Sreekanth P	National conference on Emerging Trends in Power Energy & Control at CE Thalassery		27-07-2016

National conferences conducted

Financial Year	Name of the Conference	Name of co-ordinator	Conference Venue
2015-16	National Conference on "RETICS '16"	Muhammed Sajeer N	Lalith Resort Bekal Kasaragod
	National Conference on RACE16	Deepthi.P.M	JK Residency Cheruvathur
2016-17	International conference on "Emerging Trends in smart grid Technology" by EEE department	Gireesh Kumar.A	Lalith Resort Bekal Kasaragod
	National Conference on "RETICS '17"	Muhammed Sajeer N	Nalanda Resort ,Nileswar
	National Conference on RACE17		JK Residency Cheruvathur

Colloquium conducted

Financial Year	Name of the Coloquium	Name of co-ordinator	Venue
2016-17	RESEARCH OPPORTUNITIES IN GEOTECHNICAL ENGINEERING	Shekhar.j	JK Residency Cheruvathur
	RESEARCH OPPORTUNITIES IN FUNCTIONAL ANALYSIS	Roshina.K.V	Nalanda Resort ,Nileswar
	RESEARCH OPPORTUNITIES IN SIGNAL PROCESSING	Prasanth.	Lalith Resort Bekal Kasaragod
	RESEARCH OPPORTUNITIES IN COMPUTER NETWORKS	Sheena.K	TAJ RESIDENCY ,KASARGOD
	RESEARCH OPPORTUNITIES IN POWER SYSTEM	Arun.M.S	JUJU INTERNATIONAL,PAYYANUR

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.

The syllabi and curriculum are framed by the University in consultation with the faculty and experts. Formal and informal recommendations are given by the the faculty members in the curriculum development of various programmes. Senior faculty and subject experts attend meeting/workshop arranged by APJ Abdul Kalam Technological University

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.

No. The institution does not develop curriculum for courses that are not under the purview of the affiliating University.

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

Program Educational Objectives (PEOs) and Program Outcomes (POs) are defined at the department level. At the beginning of the semester, faculty prepares course objectives and Course Outcomes (COs). In the course plan, COs are mapped with POs. For internal assessments two 'series tests' are conducted in a semester for each course. After first internal assessment test, the students scoring less mark are

identified as weak students and additional coaching is provided to cope-up with the subject and ensure understanding of the subject.

I. **Direct Assessment:** The programme is credit based with continuous evaluation. The internal continuous evaluation is conducted by the faculty handling the respective courses. The various assessment tools utilized for various types of courses are mentioned below:

- Theory courses:
  - Assignments
  - Internal Tests
  - End Semester University Examination
- Practical Course
  - Lab class performance
  - Lab internal examination
  - End semester University lab examination
- Project/Seminar/Industrial visits
  - Preparation and presentation of reports.

Assignments: Evaluates the students' CO attainment level and gives them an opportunity to enhance their self learning capability of applying knowledge and exploring the most recent developments.

Internal Tests: Two internal tests (series tests) are conducted for each course.The question papers include both short answer and descriptive/problem solving type questions for duration of two hours. Questions are mapped with the COs so as to enable assessment of CO attainment.

Laboratory class performance: Assessment of lab work evaluates the students' ability to conduct experiments, document and analyse data, arrive at valid conclusions and interpret the results. This is documented through the rough and fair records maintained by the students. Lab experiments help students to work effectively as an individual and as a member of a team.

Laboratory Examinations: At the end of each lab course, an internal lab examination is conducted, to assess the knowledge and skills obtained by the students in the lab course. A viva-voce examination (oral test) is also conducted. After the completion of the semester, examination will be conducted for each lab by the University. The performance of student for this examination is evaluated by a team of two faculties.

University Examination: At the end of every semester, University examinations for a maximum marks of 100 and duration of three hours is conducted covering the entire syllabus. Assessment of the answer scripts is carried out by competent faculty appointed by the University. For each course, the University assigns grades to the students by credit based system in a 10 point scale, considering the total marks obtained in the University examination and internal assessment marks. Based on the grade obtained by the student in a course and credit of that course, a grade point average (GPA) is assigned to the student in each semester. The GPA obtained by the student in various semesters is finally combined to get Cumulative Grade Point Average (CGPA) at the end of the programme.

Internal Evaluation of Seminar Course: The evaluation is carried out during the seventh and eighth semesters, by a team comprising of two/three faculty members. The evaluation is based on the ability to prepare and present a new relevant topic. During the presentation the response of the student to technical questions, time management and the ability to motivate the audience to follow his/her presentation is also assessed. Preparation of seminar report is also a key factor for evaluation.

Internal Evaluation of Project Course: The progress of project work is reviewed by the project guide during the project period. Evaluation of project work will be carried out based on a three stage evaluation process. The approval of the topic and its preliminary evaluation are carried out in the seventh semester. The progress of the project work is evaluated during the interim evaluation and final assessment is done in the eighth semester. The project work will be evaluated by a team comprising of project guide and a subject specific faculty team.

Viva-voce Exam: The viva-voce is conducted towards the end of the programme by a team comprising of members of faculty from the parent institute (internal examiner) and another institute (external examiner).

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.

In addition to the regular courses, the college also offers certification courses which add more value to the graduates. The prime objective is to focus on continuous education and skill up gradation. The courses are listed below.

Certification/ Skill Development courses offered by the institution under Training and Placement Cell.

Details of Training Programme conducted in the year 2016-2017

- Conducted 3 days soft skill training programme for all the students of final and Pre final year students by ICT Academy.
- Conducted 5 days aptitude training programme for all the students of final and Pre final year students by Career launcher.
- Conducted 5 days grooming session for the selected students of final year by ICT Academy.
- Conducted two days induction programme for all the first year students by ICT Academy.
- Conducted 3 days soft skill training programme as per KTU syllabus for the second year students by ICT Academy.
- Conducted 4 days Basic aptitude training and English training programme for all the second year students by Career launcher.
- Conducted 4 days Basic aptitude training and English training programme for all the second year students by Career launcher.

Details of Training Programme conducted in the year 2015-16

- Conducted 3 days soft skill training programme for all the final year students by ICT Academy.
- Conducted 5 days aptitude training programme for all the final year students by Career launcher.
- Conducted two days induction programme for all the first year students by ICT Academy.

All other years

- Conducted 5 days aptitude and softskill training programme for all the students final year students.

1.2.2 Does the institution offer programmes that facilitate twinning/dual degree? If "yes", give details.

No, there is no provision for dual degree programme as per University norms.

Yes, the institution offers academic flexibility which is helpful to students in skill development, academic mobility, progression to higher studies and improved potential for employability. The various provisions offered are enlisted below.

1.2.3 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.

Range of Core/Elective options offered by the University and those opted by the College

Core Courses

The core courses emphasize on fundamental aspects together with design methodologies and throw open avenues for its applications. Registration for all the core subjects is mandatory. Students enhance their academic and employability skills through the following:

- Tutorial sessions are made mandatory for most of the courses to acquire in-depth knowledge of the subjects.
- Invited talks by eminent persons from industry and renowned Institutions.
- Projects, mini projects and industry based final year projects
- Seminars by students
- Industrial visits

Elective Options

The students have the flexibility to choose from a specified range of electives depending on the curriculum. The elective subjects offered are based on the latest technological trends and industrial needs so that, at the end of the programme, the student will be ready to face the challenges in the industry.

Table 1.2.3 Range of electives offered by the Institution in the Dept. of Civil Engineering Department

(as per CUSAT syllabus-2012 scheme)

Semester	Electives in the curriculum	Electives offered by the institution
	E1Cost Effective Building Techniques	E1Cost Effective Building Techniques
	E2 Environmental Geotechnics	E3 Traffic Engineering
	E3 Traffic Engineering	E4 Air Pollution Control and

6th		Management
	E4 Air Pollution Control and Management	
7th	E1 Design of special Structures	E2 Ground Improvement Techniques
	E2 Ground Improvement Techniques	
	E3 Highway & Airfield Pavement Design	
	E4 Ground water Engineering	
8th	E1 Retrofitting and Rehabilitation of Structures	E1 Retrofitting and Rehabilitation of Structures
	E2 Advanced Construction Techniques and Field Quality Control	
	E3 Industrial Waste Engineering & Management	E2 Advanced Construction Techniques and Field Quality Control
	E4 Remote Sensing & GIS.	

Choice Based Credit System and range of subject options – No, as per the norms of AICTE, there is no Choice Based Credit System and range of subject options.

Courses offered in modular form

Yes, as per guidelines of AICTE, all the courses are structured and is offered in modular form. The syllabi of the courses are divided into sub modules pertaining to specific aspects of study and each sub-module is in turn related with each other.

Lateral and vertical mobility within and across programmes and courses

The students who have passed Diploma in Engineering can apply for lateral entry admission to the programme in the third semester.

Under KTU, there is a provision to award B.Tech Honours for the students who earn more than 8 GPA in the first four semesters, provided they earn additional 12 credits and have an overall GPA of above 8 for the entire programme.

Enrichment courses

Every department offers aptitude classes that enable students to attend campus interviews with ease. The Placement cell within the institution offers enrichment programmes like placement training, soft skill training, industrial visits. Expert talks are arranged to cover content beyond syllabus and expose them to latest technologies. Communication and interpersonal skills of students are enhanced through language laboratories. The audio-visual support to language learning, imparts self-confidence which boost their morale as a professional student. Every department arranges industrial visits for the final year and pre-final year students based on the relevant subjects of that term. The visit helps students to get the feel of real time environment and implementation of the subject

concepts in the practical fields.

1.2.4 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.

No. The institution does not offers self-financed programmes.

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

Yes, The college regularly conducts aptitude tests which enhance the IQ level. Mock interviews and placement training are conducted to improve the communication skills of students. The Training and Placement cell in the college plays a major role in organising group discussions, expert talks, placement training and career guidance which enhance the employability of students.

Various Activities Under Training And Placement Cell

Details of Training Programme conducted in the year 2016-2017

- Conducted 3 days soft skill training programme for all the students of final and Pre final year students by ICT Academy
- Conducted 5 days aptitude training programme for all the students of final and Pre final year students by Career launcher
- Conducted 5 days grooming session for the selected students of final year by ICT Academy
- Conducted two days induction programme for all the first year students by ICT Academy
- Conducted 3 days soft skill training programme as per KTU syllabus for the second year students by ICT Academy
- Conducted 4 days Basic aptitude training and English training programme for all the second year students by Career launcher
- Conducted 4 days Basic aptitude training and English training programme for all the second year students by Career launcher

2015-16

- Conducted 3 days soft skill training programme for all the final year students by ICT Academy
- Conducted 5 days aptitude training programme for all the final year students by Career launcher
- Conducted two days induction programme for all the first year students by ICT Academy

All other years

- Conducted 5 days aptitude and soft skill training programme for all the students final year students

1.2.6 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, as per the statutes of University of CUSAT and KTU, there is no provision for combining regular and distance modes 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 vision of the Institution, 'To be a premier institution in education and research for moulding technically competent and socially committed professiconals,' has been envisaged through various activities over the past 17 years. The programmes offered by the institution are oriented through its curriculum to attain this goal. Every graduate is nurtured in the campus by various activities to develop as a complete individual meeting the objectives laid out by the institution. The institution follows the curriculum prescribed by the University of CUSAT/KTU. The institution takes effort for supplementing the curriculum in tune with the recent advancement in the field of engineering. List of activities regularly conducted/organized by the institution to meet such requirements are as follows.

- Institution arranges industrial visits and encourages the students to undertake projects from industry to make them conscious of the challenges in industries.
- Conferences and expert talks are arranged for the students under the auspices of professional bodies like IEEE, ISTE, IEI, IETE, CSI, etc and branch associations which provides a platform to enhance their technical knowledge and soft skills by interacting with resource persons of expertise from various fields.
- Institution has an active unit of NSS which helps the students to take up socially relevant projects, thereby imparting social commitment and environmental awareness. Student branches of all professional bodies, college union and alumni association take initiatives to solve socially relevant problems, which are minimally addressed by the curriculum.

1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

CETKR provides hands on training, workshop, internship programme etc. Our institution provide freedom for students to select their project. III cell (industry institution interaction cell) is formed to enhance interaction with industry. Industrial visits are organized by the department to experience the real functioning of industry.

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?

- There is a Women Cell functioning in the college for empowering girls and addressing the issues related to women. The women staff members too are treated equally with male staff.
- The class rooms around the two beautiful courtyards and the greenery around provide a refreshing ambience for the students.
- Students of this institution offer financial support to the needy students and public.
- Students of this institution once visit old-age homes and orphanages and spend a day with them.
- Vegetables are cultivated on the campus exclusively using vermi culture and without using any chemical pesticides, and are sold to students and staff at a subsidized rate.
- Students take part in cleaning public places like Cheemeni town as a part of NSS program.
- Anti- ragging cell is vibrant on the campus curtailing all forms of ragging.
- Counseling programes are conducted for students
- Invited talks on subjects like road safety, women defense etc are conducted.
- The internet facility (100mbps), Wi-Fi connectivity, digital library and language lab enable students to improve their technical and communication skills.
- Free Software is used as much as possible and ICT enabled teaching learning is promoted. Moodle, MTutor are available to students. All class rooms, seminar halls, conference room are provided with LCD projectors and there are smart class rooms.
- The college students union plays a major role in reinforcing the societal responsibilities of the students through every program arranged such as college magazine, art fest etc
- Various scholarships are provided for SC/ST and minority groups
- All seminar halls and many of the classrooms are equipped with LCD projectors, Campus provided with Wi-Fi connectivity.

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

Moral and Ethical Values

The Ethics Policy of the Institution is as follows:

The ethics policy warrants ability to discern right from wrong, good from evil and the commitment to do what is right, good and proper, for each individual within the college.

- Value education classes are conducted
- The NSS unit of the college organizes various programmes in the college and in the community around with the participation of the faculty members, to get a sense of involvement in the task of nation building.
- Orientation programmes and Bridge courses are conducted at the beginning of everyacademic year byexperts from outside.

- College provides counselling classes to students.
- Students are encouraged to visit orphanages, differently abled children and old - age homes along with the faculties to improve their social empathy and responsibility towards society
- Days of national importance including Engineers' day and science day are celebrated to instill in students a sense of patriotism and respect for national leaders.

Academic Ethics

Create an environment within the college campus where ethical behavior is the norm, enhance the worth, dignity, potential, and uniqueness of each individual within the institution and thus to the service of society. Commit in contributing to the comprehensive education of students, protecting human rights, advancing knowledge of student growth and development. Promote the effectiveness of institutional programs, services, and organizational units. Emphasize commitments to safety, public health, environmental protection, and sustainable development.

Personal Ethics

Actions and beliefs of all individuals to be consistent with the Six Pillars of character trustworthiness respect, responsibility, fairness, caring and citizenship. Assure ethical behaviour by self-regulation and promotion of tolerance. Treat fairly all persons regardless of factors such as caste, religion, gender, disability, or nationality Do to others as you would expect others do to you.

Research Ethics

The institute has a strong advisory system to keep track of the moral and ethical values of the students and to closely monitor the ethical behavior of the students as individuals, as well as working as a team member during all the academic activities. The class tutors takes care of each class and take utmost care in assuring a high level of ethical standards among students. There is an anti-ragging cell working efficiently in the campus to prevent any issues which will directly or indirectly affect the moral and ethical standards of students. The institution usually conduct awareness programs for propagating the significance of moral and ethical values, as part of the above said units.

The college students union also conducts programs in this regard, upholding social commitments. A charity organization, S^3 (Students of CETKR for the Empowerment of People and Society) has been formed by the college students specifically for inculcating the moral and ethical values in students. They contribute in person and in material to the downtrodden of the society in the orphanages. Blood donation camps, organized by the students, have been acclaimed by the social activists.

Employability and Life Skills

The Placement Cell, Entrepreneurship Cell, department level student association and student branches of professional bodies organize programmes for improving the soft skills and employability at various levels from first year to final year. The Placement Cell of the college is working as a team under the leadership of the coordinator. The team consists of the committee members from each department and a group of dedicated students. Every activity of the unit is monitored by the coordinator. The

unit arranges periodic training and personality development programs and also helps students in arranging summer course and project works in industries. The unit also plays a vital role in motivating students for higher studies through various counseling programs. The unit pays special care to invite reputed companies to the campus and extends top quality facilities to conduct the recruitment process. Training and Placement Cell helps a large number of students to secure employment in reputed organizations every year. The Finishing School of our college conducted high intensity training programmes for passed out students of all department with free of cost

Better Career Options

The major recruiters/companies include sectors such as Information Technology and IT enabled services, Heavy Engineering, Automotive, Embedded Electronics, Indian Defence etc. Some of the major recruiters are shown in Table 1.3.1

Table 1.3.1 Major Recruiters

Indian Army	Universal Construction, Bombay	Nest Software
Infosys	Shobha Builders , Banglore	Qburst
UST Global	Platinum Builders, ERN	HCL
Poornam Info Vision	K K Builders	Kite Software
Speridian Technologies	RDS Gujarath	Reliance
Foradian Technologies	Speridian	SunSolar
Moov Technology Soln	Ibiz soft	Headrun Technologies Pvt.Ltd
IBiz Soft	Allokin	Fingent Technology Solutions
QBurst	Fofys Solutions	Indian Railway
Zayan Infotech	Tata Consultancy Service	RDS Pvt.LTd
Siraco Technologies	Trainee software Engineer-Infosys	
Webeteer , ERN	Universal Construction, Bombay	Universal Construction, Bombay
Hyundai	CAAD Centre	Shobha Builders , Banglore
KSEB	Ass. Eng. Jalanidhi	Platinum Builders, ERN
K K Builders	LSGD	RDS Gujarath

Language lab: The Language Lab provides opportunities for students to enhance their skills in communication which is a prerequisite to spark their personality and get placement in reputed firms. We have a well organized language lab where students are trained on a regular basis.

Student chapters of professional bodies: Student chapters of various professional bodies provide for students, collaboration, knowledge sharing, career enrichment, and skill development across all engineering disciplines. Institute of Electrical and Electronics Engineers (IEEE) student chapter functioning in the college.

Community Orientation: The Institute and the students have the practice of organising community orientation programmes through various student cells/clubs on,

- Anti-ragging
- Road safety
- Women defence
- Blood donation
- NSS units (three units)
- Electrical wiring of houses for poor people
- Giving financial support for blind people organisation

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

- Students give their feedback to faculty members in class committee meetings regarding the curriculum. Faculty members represent these views in appropriate forums. A programme outcome feedback is taken from the students at the end of each semester regarding the different aspects of the courses, including the curriculum.
- An exit-feedback is taken from students regarding the different aspects of the programme including the curriculum.
- Employer feedback and alumni feedback are taken to understand the industry demands. Based on this, necessary steps are taken to support the curriculum (eg: mini projects, seminars etc.).
- The gaps in the syllabi are discussed in the Departmental Advisory Committee meetings and appropriate measures are taken.
- Some of faculty members participate in the process of curriculum revision of the University so that, the feedbacks taken from the stakeholders can be used as guidelines for the same.
- Spending a day with differently abled and terminally ill children.

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

The Institution monitors and evaluates the quality of its enrichment programs through feedback collected through the course committee meeting from the students. Feedback collected from stakeholders through PTA meeting, Alumni meeting. Feedback is taken after the conduct of every quality enrichment program and suitable corrections are made wherever necessary. Formal and informal feedback from parents, industries and alumini helps to evaluate the outcome of enrichment programmes. Examination results and placement records thoroughly give the effectiveness of enrichment programmes.

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?

The faculty members are sponsored for attending workshops which help them in enriching the core curriculum.

- The institute takes part in curriculum development process by appropriate analysis of feedback given by the various stakeholders from time to time.
- The department level meetings are held to take suggestions from the faculty for modifying the curriculum.

- suggestions are forwarded to the University through the email for restructuring the curriculum.
- Faculty members attend the syllabus review meeting conducted by the University.

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 institution encourages the practice of obtaining feedback from various stakeholders such as students, alumni, faculty members and parents.The class committee meetings that are held periodically provide a platform for the students to discuss academic and non-academic issues. Parent-teacher meeting are held periodically. Their suggestions are incorporated in improving the curriculum.The alumni surveys taken to give constructive suggestions.

Students' feedback: Feedback from students are collected from the class committee meetings, interaction with students and parents, computerized feedback on courses and teachers, exit surveys, class/course committee meetings and parent teacher meetings. Faculty members are advised by the higher authorities based on the computerized students feedback and follow-up actions are suggested.

Alumni feedback: Alumni feedback is collected through online surveys, e- group interactions, Facebook groups, alumni website interactions and during alumni meets. Printed feedback formsarealso distributed and collected from the alumni.

Feedback from parents: Regular feedback is collected from parents during Open House meetings which are held class wise and generally after the series test. Interactions during informal visits by the parents to the departments also give valuable insights.

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?

No new programmes/courses were introduced by the institution during the last four years

CRITERION II: TEACHING –LEARNING AND EVALUATION

2.1 Student Enrollment and Profile

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

The institute has Under Graduate (UG) Programmes in five Engineering streams viz. civil, electrical and electronics, electronics and communication, computer science and information technology. The admission process is as per the norms fixed by the regulatory bodies of State and Central Governments. In addition to the compliance to the regulations, the student profile shows that our institution is one of the most sought after institute in northern Kerala by the top ranking students who qualify the admission procedure. These include students from different socio-economic, cultural and educational backgrounds. A fixed percentage of seats is set aside as Management Quota as per the Government orders on this behalf. The below mentioned methods ensure transparency in the admission process.

a. Prospectus:

The Prospectus issued by the Commissioner of Entrance Examination (CEE), Government of Kerala, gives the details of the courses available in the college. The details of the courses and the intake are mentioned in the website of the CEE, Government of Kerala.
The admission to seats under Management Quota (15% of the sanctioned intake) is done by the Cooperative Academy for Professional Education (CAPE) from the applications submitted by eligible candidates who are included in the Kerala Engineering Agricultural Medical (KEAM) Entrance Exam rank list published by the CEE, Government of Kerala.

b. Institutional Website:

The website of the college (www.cetkr.ac.in) provides the details about the various courses offered, eligibility conditions for admission to various programme, the infrastructural facilities available, details of placement status and training provided to the students, details about the various departments, faculty and co-curricular activities and special features of the college. The details of activities conducted and student achievements are also displayed in the website.

c. Advertisement in Regional and National newspapers

The CEE, Government of Kerala advertises in the leading newspapers about various courses offered and number of seats available in various categories for UG programmes.
The admission process is made transparent to the public through official website of CEE and newspapers by publishing all updated data. The admission is done through Centralized Allotment Process (CAP).

2.1.2 Explain in details the criteria adopted and the process of admission (Eg. (i) Merit (ii) Common admission test conducted by state agency and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes.

The criteria regarding the intake for B.Tech programmes are as follows:

- Students are admitted in Merit, Management & NRI quota as per the norms of the Government and CAPE.
- Eligibility for admission is as specified in the Common Entrance Examination conducted by the Govt. of Kerala. The merit & management students are directed by the Chief Entrance Commissioner according to the Entrance ranking through online counseling. 50% seats are free seats, 35% seats are management seats and 15% seats are reserved for NRI students selected directly on merit basis.

Government Quota (50% of sanctioned intake)

The intake of students for the B.Tech programme is based on the rank list prepared by the CEE appointed by the Government of Kerala. The rank is published considering the results of the KEAM and marks of the Higher Secondary Examination in 50:50 proportions.

Based on the options regarding institution and programme, opted by the eligible candidates, the CEE allocates students to the institution following various reservation norms constituted by the Government of Kerala.

Management Quota (35% of the sanctioned intake)

Selection to this category is done by the CAPE from among the applications submitted by candidates who are declared eligible for admission by the Commissioner of Entrance Examinations, Government of Kerala.

NRI Quota (15% of the sanctioned intake)

Selection to this category is done by the CAPE from among the applications submitted by candidates who are declared eligible for admission by the Commissioner of Entrance Examinations, Government of Kerala.

Eligibility Conditions for the various programmes are as follows:

- The minimum eligibility for B.Tech programme in the merit category is a pass in the Higher Secondary examination (10+2 level) with 50 percent marks in Mathematics and overall 50 percent for Physics, Chemistry and Mathematics put together. For the SC/ST category, a pass in the Higher Secondary examination is the criterion.
- The reservation norms specified by the Government is strictly followed. The admission to the merit seats is through a Centralized Allotment Process done by a Government agency namely Director, LBS Centre for Science and Technology Thiruvananthapuram.

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

The candidates who have a specified minimum percentage of marks are only eligible to apply for the courses. Based on a competitive examination and qualifying marks, a rank list is prepared. The admission is based on the rank list prepared after considering the

marks scored in the qualifying exam and entrance test with equal weightage. The rank details of B.Tech Programme is listed in the Table 2.1.1 below.

Table 2.1.1 Rank Details of admission to B.Tech Programme (State Merit)

No	Programme	H.R.	L.R.	H.R.	L.R.	H.R.	L.R.	H.R.	L.R.	H.R.	L.R.
		2012-13		2013-14		2014-15		2015-16		2016-17	
1.	Civil Engineering	8,594	50,800	8459	41020	5843	52736	8366	51067	7993	55777
2.	Electrical & Electronics Engineering	12282	57417	9546	57098	8794	48753	10634	55174	12050	48907
3.	Electronics & Communication Engineering	7133	58657	5934	55512	7202	46478	6987	53572	11256	55553
4.	Computer Science and Engineering	11064	59205	12846	52687	11255	50803	12680	64250	8054	53780
5.	Information Technology	7356	52773	16178	53398	---	---	16148	43941	25037	51488

H.R – Highest Rank, L.R – Lowest Rank

Comparison of State Merit category admission rank of B Tech course with nearby colleges is listed in the Table 2.1.2below:
List of colleges selected for comparison:

- LBS College of Engineering (LBSCE)
- North Malabar Institute of Technology (NMIT)
- Sadguru Swamy Nithyananda Institute of Technolgy (SSNIT)
- Government College of Engineering Kannur (GCEK)
- Sree Narayana Guru College of Engineering & Technology (SNGC)
- College of Engineering & Technology-Payyanur (CETP)

Table 2.1.2 Last Rank Admitted in for B.Tech Programme in nearby colleges (State Merit) for last 4 years

2012	CE	EEE	ECE	CSE	IT
CETKR	13226	17110	13139	17865	25262
LBSCE	10282	13680	12024	15442	23734
NMIT	46723	59372	60033	56430	------
SSNIT	55752	------	53971	------	-----
GCEK	4892	4816	4698	6927	-----
SNGCET	43072	56003	45833	58292	-----
CETP	58507	45566	58956	-----	-----
2013	CE	EEE	ECE	CSE	IT
CETKR	13022	18058	14756	19482	24975
LBSCE	8763	16864	13939	18457	27196
NMIT	56603	-----	52965	57596	-----
SSNIT	55174	-----	-----	-----	-----

GCEK	4480	5227	5590	6977	-----
SNGCET	44246	56742	58034	57904	-----
CETP	57916	58089	55883	-----	-----
2014	CE	EEE	ECE	CSE	IT
CETKR	12916	24480	18889	21431	----
LBSCE	10499	19408	19394	20743	34052
NMIT	52172	50803	-----	55247	-----
SSNIT	54576	-----	-----	-----	-----
GCEK	4985	6007	7091	7521	-----
SNGCET	39072	53317	57006	56840	-----
CETP	53729	-----	52252	-----	-----
2015	CE	EEE	ECE	CSE	IT
CETKR	15706	33420	28747	28144	41885
LBSCE	12985	23836	24939	23951	54589
NMIT	52110	18156	53256	51389	-----
SSNIT	48504	-----	-----	-----	-----
GCEK	4949	6465	7470	7014	-----
SNGCET	53930	48530	49675	49156	-----
CETP	54453	52339	45772	-----	-----
2016	CE	EEE	ECE	CSE	IT
CETKR	16201	31072	29937	21205	46384
LBSCE	14620	26309	22890	21292	53560
NMIT	52204	6213	44247	64760	-----
SSNIT	-----	-----	-----	-----	-----
GCEK	5424	7372	7633	5979	-----
SNGCET	51223	52262	31976	51223	-----
CETP	54102	51713	52242	-----	-----

A comparison of the data in the above table shows that CETKR is one of the highly preferred selections in the district/area by students who qualify the admission procedure.

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?

No. The institute follows the stipulated regulations issued by the Government of Kerala which are mentioned in the admission prospectus. The seats are allotted to the students for the various programmes through centralized admission process by the Controller of Entrance Examinations, Government of Kerala.

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

a) **SC / ST**
b) **OBC**
c) **Women**
d) **Differently abled**
e) **Economically weaker sections**
f) **Minority community**
g) **Any other**

The reservation system as per the norms of the state and central Governments are strictly followed for intake. A fixed percentage of seats are allotted to each of the above mentioned category as notified in the admission prospectus of CEE on merit basis. The percentage of seats allotted to each of the above categories in the B.Tech programme is defined in the prospectus. Excluding the seats allotted to special categories (Management quota and NRI quota) the seats are allotted in the following ratio:

- 64% seats for merit category
- 10% seats for SC/ST category
- 26% seats for OBC, Women, Differently abled, Economically weaker sections and Minority community category

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.

Table 2.1.4 Trend of Admission in UG and PG Programme for last four years

No	Programme	Sanctioned intake	Admitted	Sanctioned intake	Admitted	Sanctioned intake	Admitted	Sanctioned intake	Admitted	Sanctioned intake	Admitted
		2012-13		2013-14		2014-15		2015-16		2016-17	
1.	Civil Engineering	60	60	60	57	60	58	60	59	60	63
2.	Electrical & Electronics Engineering	60	52	60	45	60	48	60	42	60	39
3.	Electronics & Communication Engineering	60	60	60	51	60	54	60	43	60	33
4.	Computer Science and Engineering	60	60	60	54	60	51	60	50	60	52
5.	Information Technology	30	18	30	16			30	10	30	13

The Government has sanctioned for the increase of 5% seats for implementing the tuition fee waivers scheme (FWS) for women, economically backward and physically challenged meritorious students.

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 adheres to the Government policies, rules and regulations to cater to the needs of the differently-abled students.

- Seats are reserved and offered according to the Government policies at the time of admission to various programmes.
- Easily accessible ground floor class rooms and other facilities are made available to such students if needed.
- Lab sessions are specially arranged for these students at their convenience if needed.
- For the students having vision or functional disability, the institution provides extra time and scribe (supporting person) for examination, based on the regulations by University.
- Ramps are constructed in all buildings in the campus for differently-abled students.

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

The institution takes care of all aspects and needs of the students at the beginning of the programme. The academic profile and personal information of the students are made available in the advisory files. Faculty advisor identifies the students who need special attention based on these details. The basic knowledge, skills and shortcomings of students are assessed by the interaction of faculty members. This assessment helps the teachers to train the students on the basics before commencing the regular course. Lateral entry students who are admitted to the programme along with the second year students are assessed on their basic knowledge in different subjects and remedial training is given if needed.

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 Courses, etc.)

To enable students to cope-up with the programme of their choice, orientation programmes are conducted before the beginning of the programme. Through which they are made aware of the curriculum, syllabus, pre-requisites, rules and regulations of the University. They are also exposed to various facilities available in the department. The teachers spend a few classes to recapitulate major concepts and fundamentals for the subjects to bridge the gap, if any. Bridge courses are generally conducted for Mathematics, Physics and English for the incoming students from different backgrounds

- Remedial courses for various subjects are given to the weaker students that will eventually improve their academic performance.
- The courses like personality development programmes, soft-skill training and various technical workshops are conducted for the benefit of the students.

- Expert talks, technical festivals, seminars and conferences are conducted periodically in the institute to help the students to get acquainted with the rapidly changing technological advancements.

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

The institution ensures that there is no discrimination on the basis of gender. The Student Welfare Committee and Student Grievance Cell have been instrumental in addressing the complaints and suggestions put forth by the students of the college.
The institution gives special care in including all classes of faculty in the various committees at the institution level, which further strengthens the working relationship among members of the work force.
The activities of NSS make students aware and involve in issues related to society and environment. Various programmes are regularly organized in the campus to this aspect. In addition, 'Introduction to Sustainable Engineering' has been made a compulsory course for first year students by KTU to encourage the need to come up with more sustainable technologies.

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

The performance of students in class tests and participation in activities such as class room discussions, seminars, class committee meetings etc., reflect her/his learning capabilities. The institution follows an efficient evaluation system that helps categorize students based on their ability to learn. Advanced learners are identified and constantly encouraged to strive for higher goals. Teachers ensure that such students are given challenging homeworks/assignments that increase their intellectual capacity.

- Guidance classes for competitive examinations like GATE, CAT etc. arranged by the institution
- Making use of NPTEL, NMEICT programmes.
- Participating in group discussions, debates, quizzes and science exhibitions to help enhance analytic thinking and problem solving abilities and to gain firsthand experience in modeling and design.

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 institute maintains an efficient advisory system wherein one faculty advisor is assigned to monitor the performance of students of each class. The advisors identify and keep track of those students who may be academically under-performing, economically weak, or ones with personal struggles so as to support them in making learning more fruitful.
Each advisor maintains a set of documents containing information pertaining to attendance, subject/classroom/lab involvement, performance in class test, assignments etc. Assistance is provided by the institution to students in the form of special coaching, remedial classes, simplified learning material and personal counselling. Reports on all the student assessments are communicated to the parents and class PTA meetings are

convened regularly.

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 college follows a specific teaching-learning process and evaluation schedules. The institute follows an academic calendar prepared by university for scheduling the events and a course plan to structure the course delivery.

Academic calendar

At the beginning of each academic year, the academic calendar prepared by the University and the institution strictly follows it .Based on the academic calendar of the University, Year calendar is prepared by the HoDs and presented in HOD meeting.. The institute sets the year calendar in line with the academic calendar prepared by the University.

Course plan

At the commencement of every semester, each faculty member will prepare a course plan for the subject. This course plan includes the schedule of classes, course objectives and expected course outcome, the method of content delivery, details of tutorials, assignments and tests etc.

Valuation

The Continuous Assessment (CA) procedure enlightens the faculty-in-charge about the strengths and weaknesses of the class that further helps the faculty to suitably change the course delivery methods.

Institute follows the evaluation methods prescribed by the University (which is explained in criteria 2.5) following a specified schedule. Two internal examinations, two assignments and one tutorial sessions per week are conducted for each course in every semester. Weak students are identified by faculty-in-charge of each course and the remedial classes are conducted for these students. Also special attention is given to them in classes.

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

The institute has a central Internal Quality Assurance Cell (IQAC) which contribute to improve teaching-learning process. It coordinates the activities of each department through which ensure and monitor the quality of teaching-learning process. IQAC monitor the quality of course delivery, the quality of question papers of internal assessment (assignments, internal tests, etc.) and the conduct of lab sessions. The cell also ensures whether the portions are covered as per the course plan and whether the tutorial sessions are conducted for all subjects. This helps to maintain a consistency in the quality of academic activities in the institute.

2.3.3 How is learning 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?

All measures are taken by the institute to make learning more student-centric. Opportunities for interactive learning is provided to students through tutorials, lab sessions etc. In the curriculum, most of the theory subjects have tutorial hours per week

for which tutorial questions are given. More faculty members are assigned for the tutorial hours. The tutorial questions are solved by students by interacting with the faculty and peers. Also in labs, students are divided into groups and an interactive learning process is encouraged. Further, more student-centric learning strategies such as peer instruction, group discussions, seminars, group quizzes etc. are also practiced in the institute. Student projects provide best opportunities for collaborative as well as independent learning. The individual contribution, leadership quality and team efforts are evaluated during project evaluations. To support independent and collaborative learning, institute conducts technical competitions, professional body activities, paper presentations etc. Students are also encouraged to participate in such competitions organized by other reputed institutes. In order to make the teaching-learning process more student-centric, all the class rooms are made smart. Faculty members are nominated to attend Pedagogical trainings regularly, in order to expose them to student-centric learning strategies.

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 college gives high importance in nurturing critical thinking, creativity and scientific temper in the students. For this aspect, the college encourages the students to participate in technical events like paper presentations, innovative design competitions etc. In addition to that, student chapter of IEEE organizes many programs which contribute to these aspects. Students are encouraged to participate in technical competitions that may inculcate a scientific temper and will inspire them to be lifelong learners. 'Life-long learning' is an aspect that is given great importance by this institute and is kept as a graduate attribute that the college demands from the graduates

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.

The faculty of this institute utilizes multiple teaching aids to make course delivery more effective. The faculty utilizes all the potentials of smart classrooms for making the teaching process effective. Apart from this faculties uses NPTEL NME-ICT lectures to enhance the teaching learning process. Also faculties provide information about various possible sources of knowledge to students.

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

In order to expose students and faculty to the advancement in terms of technology and skills, the college encourages them to participate in expert lectures, conferences and other technical events. The institute has started discussions and in the final stage of signing MoUs with R&D organizations like CDAC, KELTRON and BSNL in this area. Lectures by industrial experts and scientists from reputed research organizations are regularly arranged for students to update the advances in technology.
Several Faculty Development Programs (FDPs), National/International Conferences, Colloquiums etc. are organized by different departments in latest technological areas of

research to throw light on the recent advancements. Most of such events are funded by TEQIP. For the last four years, many faculty members and technical staffs attended FDPs, training programmes, conferences, workshops etc. in reputed institutions inside and outside Kerala, under TEQIP scheme..

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?

The Counselling and Guidance Cell functioning in the institute provides personal, psycho-social support and guidance to students. It provides professional counselling to all students and individual counselling to needy students. Also the faculty advisor helps the students in academic and personal matters and provides all support in case of any grievance. The advisors maintain good relationship with parents to support such activities. In addition to that, Student Grievance Cell is functioning effectively in the campus to address grievances of students.

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 faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?

The teachers are exposed to innovative and student-centric teaching methods through attending various courses such as faculty development programmes, Pedagogical Training at IITs etc. Teachers are encouraged to implement such active learning methods in their classes. Professors practice active knowledge imparting techniques such as peer instruction, group quiz, flip-class learning, wiki-based learning etc.

The innovative teaching methods create special interest among students and they appreciate such methods of teaching learning process. This helps the students to thoroughly understand the concepts. Availability of smart class rooms makes new teaching methods possible.

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

To augment the teaching-learning process; assignments, projects, seminars, etc. are given to students which demands the use of the resources in the college Central Library. The digital library in the college has a large collection of technical and co-curricular related books. Students can borrow books from library from the common section and can refer books in reference section. A book bank facility for SC/ST students is also functioning effectively with a very good collection of books. The library facilities are open even after the regular working time of college.

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 academic activities are completed as per the academic calendar and year calendar. No challenges are generally faced in this aspect. Faculties engage additional hours during weekends whenever required to complete the syllabus.

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

Faculty evaluation by students is conducted twice in a semester; at the middle and end of each semester. This data is used to evaluate the effectiveness of teaching. This data is monitored by the faculty, HoD and Principal. Feedback is collected from students on various subjects and discussed in Class Committee (CC) meetings, which consist of faculty advisors, faculty handling the subjects and student representatives. This help to improve the teaching-learning process.
IQAC monitor the quality of course delivery, the quality of question papers of internal assessment (assignments, internal tests, etc.) and the conduct of lab sessions. The cell also ensures whether the portions are covered as per the course plan and whether the tutorial sessions are conducted for all subjects.
The methods prescribed by the University are followed to evaluate the learning process. In addition to such evaluation methods, Course Outcomes (CO) are also evaluated for every subject. This CO evaluation in turn will help to achieve Programme Outcomes (POs).

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

Faculty members are recruited as per the qualifications prescribed by the AICTE, affiliated Universities (CUSAT and KTU) and Government norms. Recruitment process is done by CAPE. It searches for highly qualified and self motivated faculty. Their expertise in the subject, proficiency of language, skill of teaching etc are evaluated through a rigorous selection procedure. In the search for qualified faculty, CAPE first makes advertisement in the local and national news papers and website (www.capekerala.org). Candidates are selected on basis of test and/or interview Interviews are conducted by the panel of experts consisting of CAPE director, one nominee from Government/Directorate of Technical Education (DTE), one nominee each from University, AICTE, one subject expert etc. The expert committee prepares the rank list of selected candidates and CAPE appoints them following reservation policies pertaining to Government appointments. Their appointments are further approved by the University and the DTE.

The faculty retention of the college is more than 60% in all departments, which is one of the strengths of the institution. The institution ensures that the faculty members attend various training programmes and workshops for updating of knowledge and skills, in order to meet the changing requirements of the curriculum

Table 2.4.1 provides the gender specific details of faculty members possessing different level of qualifications and holding the capacity of different cadres.

Table 2.4.1 Faculty distribution in different cadres

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
Ph.D			1		1	1	3

M.Tech			1	1	20	9	31
M.Phil							
MSc/MA					1	2	3
B.Tech					3	2	5
						Total	42
Temporary teachers							
Ph.D					1	1	2
M.Tech					11	17	28
M.Phil							
MSc/MA						5	5
B.Tech							
						Total	35

2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes / 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.

At present there is no shortage of faculty in the institute. When a new topic/subject is introduced in the curricula, faculty members are nominated for special training sessions organized by the university. Faculty members are deputed for higher studies like M.Tech/Ph.D under QIP and encouraged to take up research projects. The faculty members who undergo training come forward to offer related elective courses and projects. During the last three years, a number of faculty development programmes in emerging areas of study have been organized by the institute, under the sponsorship of TEQIP II. Many invited lectures are organized in the institution under Training and Placement Cell (TPC).

2.4.3 Providing details on staff development programmes during the last four years. Elaborate on the strategies adopted by the institution in enhancing the teacher quality.

The details of the staff development programmes during last four years along with the strategies adopted by the institution in enhancing the teacher quality are given below:

- To empower and facilitate the use of various tools and technology for improved teaching-learning, various faculty training programmes are organized by the institution
- Teaching learning methods/approaches
  - Faculty development programmes are organized for Soft Skill Development and Tools for Quality Education, Research Methodology, Intellectual Property Rights etc.
- Handling new curriculum
  - Whenever a new subject/course is introduced in the curricula, Faculty members were deputed for training programmes on the newly introduced courses such as Introduction to Sustainable Engineering, Design and Engineering Life skills etc.
- Content / Knowledge Management
  - International/National conferences, faculty development programmes, workshops, seminars, invited talks etc., are organized by all departments

of the institution for content/knowledge management.

- Selection, development and use of enrichment materials
  - The college has a large collection of books in all engineering disciplines. The information on online resources /study/teaching materials (e.g., NPTEL, IEEE etc.) is properly communicated among the faculty members and students. The Wi-Fi connectivity and full-fledged internet facility of the college helps to use such facilities effectively.
- Assessment
  - Faculty members are given training for direct assessment as well as indirect assessment of courses (e.g., Rubrics), by senior faculty members.
- Audio Visual Aids / Multimedia
  - The college has smart class room facility in all departments. The faculty members are encouraged to use such facilities for their teaching.
- OER's
  - The other educational resources like web based learning (e.g. NPTEL, NME-ICT), simulation/physical models are encouraged to be used by faculty for course delivery.
- Teaching learning material development, selection and use
  - Before the commencement of classes faculty members are directed to prepare course plan, compile resources and tools for assessment. Workshops are attended for newly introduced courses.

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

- The institute promotes faculty members for acquiring higher qualification (like M. Tech/ Ph.D) under the Quality Improvement Programme of AICTE
- Institute allows study leave for faculty members pursuing Ph.D.
- The institute encourages the faculty members to attend short term training programmes for updating the subject knowledge.
- The institute encourages the faculty members to attend pedagogical training for updating/enhancing the teaching skills.
- The institute has the facility of TEQIP-Phase II, under which faculty members are encouraged to organize workshops/conferences/short term training programmes, to attend conferences and present papers at national and international level.
- .The faculty is encouraged to take up research projects by acquiring funding from Government/Scientific organizations.
- The faculty is encouraged to undertake research projects in collaboration with national/international research institutions.

2.4.5 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?

The institute has an effective system for evaluation of teachers by students. The students are directed to perform the evaluation process twice in a semester- one immediately after the first internal exam and the second one at the end of the semester. Based on the index obtained and comments of students, the respective HoDs assess the evaluation index of

individual faculty and give suggestions for improvement. The report compiled by HoD is passed to the Internal Quality Assurance Cell (IQAC) of the institute. They come up with policies/suggestions for improvement of quality of teaching. The remedial measures are taken and faculty members are advised and nominated for trainings on pedagogy and trainings on recent advancements in various courses.

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 institute performs the student evaluation process based on the regulations suggested by the concerned Universities. The stake holders are made aware of these processes through the following measures:

- Highlighted during orientation programmes at the beginning of course.
- Reiterated during class committee meetings and PTA meetings
- Evaluation process is continuously discussed during departmental meetings

The marks of internal assessment are generated based on the entries given by each faculty responsible for a course. The entries and the internal assessment marks are displayed on the notice board of respective department. They are then presented to the parents in class PTA meeting by one of the senior faculties.

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

College of Engineering Trikaripur has been affiliated with the Cochin University of Science and Technology (CUSAT) since 2000. The engineering batches from 2015 have been affiliated to KTU. The institute follows the evaluation procedures prescribed by the respective Universities. Currently both the universities have a Centralized Evaluation System, and the University keeps the institute regularly informed of the process.
The institute has been making its own reforms in the evaluation process in the college level as well. The institute is presently shifting to outcome based evaluation of various Graduate Attributes. For this, the institute has specified POs based on the Graduate Attributes suggested by National Board of Accreditation (NBA). The individual departments in the institute utilize unique set of rubrics also for assessing individual PO.

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?

College of Engineering Trikaripur plays its role in the evaluation procedure based on the reforms of the University examinations. The institution participates comprehensively in the process, as prescribed by the University.
The faculty members of this institution also serve as Syllabus/Curriculum setters, Observer for Examinations, Chief Examiners, Examiners of answer books etc. The service of our faculty in the above mentioned areas helps the University to bring reforms in curriculum and the evaluation procedures effectively and promptly.
When the affiliation changed to KTU, the institute adapted to the reforms by incorporating sophisticated infrastructures to meet the requirements prescribed by the University
The institute follows the University guidelines but allows the students to improve their

performance through multiple tests and assignments. Students are also counselled and given special attention in case they are found to be less proficient in the course.
The institute further attempts reform in its internal evaluation process by verifying the attainment of specified graduate attributes in our students through specific procedure, from the academic session of 2015-16. A rubrics training workshop was conducted to educate the faculty members about the rubrics-based evaluation and formulation of rubrics for the assessment of the Programme outcomes of all departments.

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

For every course students are subjected to various Continuous Assessment (CA) procedures like assignments, quizzes, tutorials and class seminars that are evaluated by the faculty-in-charge. Two internal examinations (Series Tests) are also conducted in a semester as prescribed by the Universities. Total marks awarded for internal assessment is 50, and the division of the marks is given in Table 2.5.1. At the end of every semester, students are further evaluated by the University Exam (summative assessment) for maximum marks of 100. The total marks scored for a subject is taken as 150, which is the sum of CA marks (50) and University Exam marks (100). The CA marks for the individual subjects shall be computed by giving weightage to the parameters as shown in Table 2.5.1

Table 2.5.1 Contribution of various parameters for CA marks calculation

Subject	Attendance	Tests (Series Tests)	Assignments/Class work
CUSAT			
Theory	10	25	15
Practical	0	25	25
KTU			
Theory	0	40	10
Practical	0	30	70

Some of the examples in which the evaluation system positively contributed to the improvement of student performance are given below.

- Students are given the advantage of appearing for remedial classes and makeup tests to compensate for any shortage of marks.
- The Continuous Assessment (CA) procedure enlightens the faculty-in-charge about the strengths and weaknesses of the class that further helps the faculty to suitably modify the course delivery measures.

2.5.5 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)

To ensure the strictness and transparency in internal assessment process, all the entries that contribute to the marks for CA are systematically and periodically published on the department notice boards. The daily attendance in all courses is also entered by the faculties-in-charge. These are made available to the staff, students, parents and administrative faculty. Any discrepancy can be brought to the notice of the faculty-in-charge, HoDs and the authorities of the institution so that the problem can be rectified.

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

The institute specified 12 Graduate Attributes (GAs) prescribed by NBA. The GAs are: Engineering Knowledge, Problem Analysis, Design & Development of Solutions, Investigation of Complex Problem, Modern Tools Usage, Engineer and Society, Environment & Sustainability, Ethics, Individual and Team work, Communication, Project Management and Finance, Lifelong Learning

Every programme of this institution has established a list of POs, based on the graduate attributes. All the POs are achieved through the different courses offered by the department. The curriculum delivery is entirely based on the objectives and outcomes of the respective course. Assessment of the course outcomes, in addition to examinations, is done through various techniques like tutorials, quizes, assignments, seminars etc. Individual departments have developed unique set of rubrics for assessing individual POs.

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

The institute has a grievance redressal system and is functioning for the students and faculty of the institute. A decentralized functioning is being successfully practiced in the campus for grievance redressal. Majority of the grievances reported are ofminor in nature and are taken care of by the respective department. To take care of major grievances, the institute has a Grievance Cell constituted by the Principal. The committee addresses the grievances of the students and to consider their appeals on any decisions made by the institute.

The composition of the Grievance Cell is given below:

- Convener: A Senior Professor
- Members: Four faculty members including minimum one lady faculty.

Complaints concerning University valuation can be directly represented by the students to the University. Errors if any in University question papers are also represented and forwarded to the University through proper channel. After evaluation, students get opportunity to apply for revaluation of their answer scripts in the case of specific grievance.

Any objection regarding the conduct and evaluation of internal tests can be represented in the institute at various levels. The discrepancies related with internal evaluation procedures for example, question papers not pertaining to syllabus, providing inadequate data, etc. are effectively addressed by the faculty-in-charge and HoD. Complaints and grievance regarding evaluation of examinations at the institute level are properly addressed by the individual departments. If the students further have grievance, they can approach the Grievance Redressal and Appeals Committee.

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?

The College has clearly stated learning outcomes. The College website and prospectus very clearly state the vision, mission and objectives of the Institution. The students are made aware of the aims and objectives of the institute through Orientation Programmes,

Seminars and Talks, etc. The institute ensures that staffs of are informed of the system through discussions in the staff council meetings, departmental meetings etc.

2.6.2 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 students results /achievements (programme/ course-wise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.

Progress report indicating performance in internal assessment tests, assignments and attendance of all students are displayed in the notice boards of each depatment. Progress reports including the University marks are sent to all parents. Parents of underperforming students are informed by the faculty advisor over phone and they are directed to meet the HoD and faculty handling classes. Class-wise PTA meetings are held during each semester and steps to correct and improve performance of the students are thoroughly discussed during the interaction among faculty advisor, HoD, other staff members, parents and students. The same will be put into practice and improvement is examined.

Table 2.6.1 University pass percentage for the past four years

No	Department	2012-13	2013-14	2014-15	2015-16
1.	Civil Engineering	56.9	78.57	62	64.71
2.	Electrical & Electronics Engineering	53.1	45.83	51	55.17
3.	Electronics & Communication Engineering	54.9	48.57	44	50
4.	Computer Science and Engineering	52.5	55.38	47	30.30
5.	Information Technology	68.75	54.54	58.6	47.62

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

In the beginning of the semester, the course plan is prepared by each faculty, which is made available to the students. In the course plan, detailed schedule and mode of delivery of different modules of the course is given. Different modern delivery methods such as web based learning, use of ICT (Information and Communication Technologies) etc., is adopted along with conventional practices to deliver course contents by lecturing.

In addition to the content in the syllabus, industrial/field visits, expert talks, workshops, trainings etc, are organized for the students. The students are exposed to new learning approaches and are directed to submit reports/conduct seminars based on the above.

2.6.4 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 institute has various student chapters such as NSS, IEEE etc., to support students to identify the social issues and suggest solutions. The programmes conducted by Training and Placement Cell (TPC) enhances the social and economic relevance of the courses. This is also done through:

- The College magazine
- Co-curricular activities such as talks and seminars organized by departments.

- Out-reach programmes organized by NSS to create social awareness.
- Internship programmes
- Interdisciplinary, Innovation research projects
- The Institution takes the initiative to encourage the of research aptitude
- Participation in inter college events and university programmes.

Students are encouraged to engage in projects with social and economic relevance by utilizing the knowledge acquired through the courses offered in the programme.
To elicit innovative ideas and research aptitude, students are encouraged to conduct and participate in technical symposiums every year and they are sponsored to participate, present and publish research papers.
The Training and Placement Cell identifies firms relevant to the courses and train students for their requirement. The students thus get exposed to the relevance of their courses and thus help to get quality jobs.

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

The institute has a defined system to collect data on student learning outcomes. The learning outcomes are assessed through internal test, assignments, tutorial etc. Faculty-in-Charge of each course collects and keeps data for the learning outcomes. The collected data will be analysed by the faculty. For each course, the result analysis is carried out and compiled by faculty advisor and given to IQAC. Based on result analysis weak students are identified and remedial coaching is given to them to overcome the barriers of learning. The evaluation of teachers by students is also done for every course in order to identify the flaws in teaching. This is also analysed by the IQAC and steps are taken to improve course delivery.

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

Head of the Department, Department Academic Coordinator and Faculty Advisor strictly monitor the content delivery of every course and ensures that it is done as per the course plan submitted by the faculty member. Class committee meetings convened by the HoD addresses the issues faced by the teachers and students. Corrective measures such as extra classes for difficult topics, remedial classes for weak students, improvement of teacher/student behavior etc., are undertaken.
The institute monitors and ensures the achievement of learning outcomes through:

- Department and Staff Council meetings
- Informal feedback is sought from students and teachers
- The institute has IQAC for monitoring and ensuring the achievements of learning outcomes.
- Monitoring students' progress through tests and assignments.

CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

3.1 Promotion of Research

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

No

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 importance

The Institution constitutes an R&D cell with all the HOD's of various departments as members and senior research advisor K. P. Mohandas and Dr. Narayanan

Table 3.1.1 Constitution of Research Council (2016-17)

No.	Name of faculty	Department	Capacity
1	K P Mohandas		Advisor
2	Dr. Narayanan		Advisor
3	Prof. Sekhar J	CE	Member
4	Prof. Gireesh Kumar A	EEE	Member
5	Prof. Mahesh V V	ECE	Member
6	Prof. Sheena K	CSE	Member
7	Prof. Santhosh S N	IT	Member

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
- Facility to provide seed money to the research proposal submitted by the faculties
- Adequate infrastructure and human resources
- Time off, reduced teaching load, special leave etc. is provide faculties
- Support in terms of technology and information needs
- Facilitate timely auditing and submission of utilization certificate to the funding authorities

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

- Workshops and expert talks about recent technologies and findings are conducted for students.
- Student professional chapters are functioning in college
- Colloquium, National and International Conferences are conducted which provide the platform for the students to get the knowledge about different research areas.

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.)

Table 3.1.2 Faculty members engaged in Ph.D research work

Department	Faculty	Area of Research	Registration
Computer Science and Engineering	Naveena A K	Image Processing	2014
Electronics and Communication Engineering	Mahesh V V	VLSI signal processing system	2012
Electrical and Electronics Engineering	Gireeshkumar A	Renewable energy	2015
Civil Engineering	Jikhil Joseph	Structural Engineering	2014
Mechanical Engineering	Sudheesh N	TIG welding of Aluminium alloy	2014

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.

Table 3.1.5 Training programmes/workshops organized by the various departments during 2012-17

Programme		Guest/Speaker	Data
Civil Engineering			
1	Colloquium on research opportunities in geotechnical engineering	Dr. K Muthukkumaran Associate Professor, NIT Trichy Dr. Anjana Bhasi Asst. Professor, NIT Suratkal Dr. Kodi Ranga Swamy Asst. Professor, NIT Calicut Dr. Ravi K Asst. Professor, IIT Guwahati Prof. S Chandrakaran NIT Calicut Dr. T V Bharat Associate Professor, IIT Guwahati	26th Feb. 2017

		Dr. Vandana Sreedharan Associate Professor, GEC Kannur S R Mohaputra, IIT Madras	
Electrical and Electronics Engineering			
2	FDP on Engineering Research Practices and Tools	Dr. Mohan Das Prof. and Dean, MES College of Engineering Malappuram Dr. Abraham T Mathew Prof. NIT Calicut Dr. Danish P B Assoc. Prof. NIT Calicut Dr. K C James Prof. CUSAT Dr. Deepak T G Assoc. Prof. IIST Trivandrum Dr. P Sooraj Assoc. Prof. GEC Kannur	23rd - 27th Nov. 2015
3	International conference on emerging trends in smart grid technologies	Dr Chem Nayar, Emeritus Professor, Curtin university of technologies, Western Australia Dr Sudha Balagopal, Principal, Vidya academy of science and technologies Dr K KSasi, Professor, Amritha school of engg. Coimbatore Dr Jai Govind singh, Asian Institute of technology, Thailand Dr Sasidhararan Sreedharan, Prof MES college of Engg. Kuttipuram	21st - 23rd Apr. 2016
4	National Conference on innovative power and energy conversion technologies	Dr K P Mohandas, Former Nit dean Dr Sasidhararan Sreedharan, Prof MES college of Engg. Kuttipuram Dr Jayaprakash, Professor, Govt Engg College Kannur	10th and 11th Mar. 2017
5	Colloquium on Research Opportunities in Power	Dr. D N Gaonkar, NIT Suratkal	25th Mar. 2017

	System	Dr K KSasi, Professor, Amritha school of engg. Coimbatore Dr. Jeevananth, IIT Roorkee Dr. Raveendranath A, IIT Guwahati	
Electronics and Communication Engineering			
6	Workshop on Signal and Image Processing using MATLAB	Arun Babu and Shanthi Kumar Bitsforge Technologies, Ernakulam	11^{th} - 16^{th} Jan. 2016
7	National conference on recent advances in communication and electronics	Dr. Prasad Krishna Professor, ME Dept, NIT Suratkal Dr.K A Navas, Principal LBSCE Kasaragod Mr. M Manoj, JCMCSIIT, Trivandrum Mr. Sudeep Kumar V P, Sr. Subdivisional Engineer in BSNL Dr. C Sathish Kumar, Professor, Dept of ECE, RIT Kottayam	8^{th} - 9^{th} Mar. 2016
8	Colloquium on Research Opportunities in	Dr. A. Rajesh, Associate Professor, IIT, Guwahati Dr. Jeny Rajan, Assistant Professor, NIT, Surathkal Dr. Sudhish N George, Assistant Professor, NIT, Calicut Dr. M V Rajesh, Associate Professor, College of Engineering, Poonjar, Under IHRD, Govt. of Kerala Dr. Renu Jose, Assistant Professor, RIT, Kottayam	20^{th} Mar. 2017
9	National conference on Recent Advances in Communication and Electronics	Dr.K A Navas, Associate Professor HOD, ECE Govt. College of engineering Kannur Dr. R Biju Kumar, Principal, College of Engineering Trikaripur Dr.Linesh J, Assistant Professor Government College Mananthavady	8^{th} - 9^{th} Mar. 2017
Computer Science and Engineering, Information Technology			
10	FDP on Cloud Computing	Dr. T Senthil Kumar, Associate Professor, Amritha School of Engineering	8^{th} - 12^{th} Dec. 2014

		Dr. Santhosh Kumar G, Assistant Professor, CUSAT Mr. Mustafa B, Associate Professor, Bearys Institute of Technology Dr. Mohit P Tahiliani, Assistant Professor, NITK, Surathkal	
11	National Conference On Recent Trends In Computer Networks	Dr. Mohit P Tahiliani, NIT Suratkal Dr. Annappa, NIT Suratkal Dr. Santhosh, CUSAT	16th and 17th Feb. 2016
12	Colloquium on Research Opportunities in Computer Networks	Dr. B R Chandavarkar, NIT Suratkal Dr. Subrathkar, IIT Delhi Dr. Damodar Reddy Edla, NIT Goa Dr. Venkata Naresh Babu Kuppili, NIT Goa Dr. N Sivagurunathan, Gandhigram Deemed University	4th Mar. 2017
13	National Conference On Recent Trends In Computer Networks	Dr. Mohit P Tahiliani, NIT Suratkal Dr. B R Chandavarkar, NIT Suratkal Dr. Damodar Reddy Edla, NIT Goa	21st and 22nd Mar. 2017
14	Colloquium on Research Opportunities in Financial Analysis	Prof. Thamban Nair, IIT Madras Prof. K Parthasarathy, Retired RIASM Dr. Sam Johnson, NIT Surathkal Dr. Santhosh George, NIT Surathkal Dr. Kiran Kumar V B, CUSAT Dr. Easwaran Nambodirin T C, Govt Brennan College, Kannur	25th Feb. 2017

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

- Inviting experts from the industries with the help alumni
- Conducted research colloquium to get opportunity to interact with experts.
- Conducting workshop and FDPs.

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?

- 12.5%
- Yes.

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)

- Technical fest to give opportunities to the public to know the recent advancement in technical scenario and innovative findings in the engineering field.
- Keynote speech of experts attended in the research colloquium help the students to attain knowledge about new findings and developments in various areas.
- Consultancy works, mechanical and civil dept to benefit the people nearby

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 research fund for the project and other consultancy are obtained from various funding agencies of the government and industries. Twenty percentage of the total budget is earmarked for research activities and more than 90 percentage of the budget is utilized for the purpose. The major heads of expenditure for research for previous years are shown in the Table 3.2.1.

Table 3.2.1 Expenditure for research (In Rupees)

No	Items	2014-15	2015-16
1	Library	9,55,468	1843258
7	National and international conferences		36,77,713
8	Total	9,55,468	55,20,971

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?

Yes. Seed money is provided by agencies like TEQIP and CERD. The institution takes initiative and provides all types of support to avail this seed money by the research faculty every year. Faculties are provided with infrastructure facility and administrative support to get the seed money sanctioned from various agencies. Seed money is yet to

be received by the faculty.

3.2.3 What are the financial provisions made available to support student research projects by students?

- Provision is made available to avail seed money of maximum one lakh for the students under the guidance of faculty members.
- University affiliated by our institute is providing seed money by inviting the project proposal by incorporating different external agency.
- The details of seed money project of students.

Table 3.2.2 Seed money sanctioned/received

No	Title of the Project	Funding Agency	Year of Sanction	Amount	Ongoing/ completed
1	Online parking management system using IoT	Kerala State Council for Science Technology Environment	2017	Rs 7000/-	Ongoing

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

No interdisciplinary research works are so far carried out

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

- The facilities in college is provided for the research works through R&D committee. The researcher can avail the facilities in any department.
- For inter department facilities made available to the faculty based on their submission to the head of the department recommended by the R&D committee.
- Students can avail the facility by providing submission recommended by the guide to the concerned department head.
- Issue registers are kept in all laboratories and library.
- Utilization register is kept for equipment above five lakh.

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

No

3.2.7 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 extends all the support for securing research funds from various funding agencies.
- The R&D coordinator will intimate about the various funding agency to the faculties.

3.3 Research Facilities

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

- Labs have sophisticated equipments and software to support research activities.
- The central library subscribes various e-journals of various disciplines
- Registered to the national digital library of India(NDL)
- Library has membership of INDUS AICTE consortium
- The institute provides 100Mbps leased line for internet access.
- The faculty and students can access the internet from the department by registration.

The research facilities available in the institution under various departments are listed in Table 3.3.1.

Table 3.3.1 Research facilities in different departments

No	Laboratory	Facility Available
1	Advanced EE Lab	Ongoing

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?

- To promote research activities in the college, a R&D committee is constituted with Principal as the chairman of the committee.
- Applied for TEQIP III funding by submitting IDP
- Planning to apply for RUSA fund
- Proposal submitted to management for power system lab.

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.

NIL

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

NIL

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

- The central library subscribes 7 e-journals of various disciplines and 32 printed journals.
- Registered to the national digital library of India(NDL)
- Library has membership of INDUS AICTE consortium
- The institute provides 100Mbps leased line for internet access.

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.

Nil

3.4 Research Publications and Awards

3.4.1 Highlight the major research achievements of the staff and students in terms of patent obtained and filed (process and product)

Nil

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 institute is yet to start its own publication. At present the best papers presented in national and internal conference organized by the institution has published in research journals.

3.4.3 Give details of publications by the faculty and students:

Publications per Faculty

There are a total of 44 publications in national/ international journals and conferences. The faculty strength of the institution is 60.

Table 3.4.1 Faculty publications during 2012-17

No	Name of the Department	National	International
1	Civil Engineering	10	10
2	Information Technology	4	3
3	Electrical & Electronics Engineering		5
4	Electronics & Communication Engineering	1	8
5	Computer Science & Engineering	2	1

Table 3.4.2 Student publications during 2011-15

No	Name of the Department	National/International
1	Civil Engineering	1
2	Information Technology	
3	Electrical & Electronics Engineering	
4	Electronics & Communication Engineering	
5	Computer Science & Engineering	

The details of the faculty and student publications are provided in the annexure

3.4.4 Provide details (if any) of research awards received by the faculty

NIL

3.5 Consultancy

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

- The institute has an Industry Institute Interaction Cell (III Cell) to coordinate the interaction of the institute with industries.
- The institution takes initiative to make MoU with industries through III cell.
- Through III cell various workshops and expert talks are conducted with experts from industry.

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

- The institute has a policy to encourage and promote consultancy with industries
- Institute has signed MoU with industries
- The expertise available in the institute is published in the college website.

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

- Lab facilities are made available to the faculty as per the requirement.
- Weightage is provided for the consultancy work done by the faculty for availing annual increment.

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

- Civil department is conducting consultancy and testing of material(Concrete cube, Latrite brick, fine and coarse aggregate water quality test)
- The clients for the consultancy and testing includes LEE builders, PWD and for local people.

The details of consultancy services provided by the faculty of the institute are given in Table 3.5.1 and the revenue generated through consultancy services are provided in Table 3.5.2.

Table 3.5.1 Details of consultancy work of faculty

No	Name of Faculty	Areas of Consultancy	Industries to Which Provided
1	Sekhar J	Concrete mix design	LEE builders

Table 3.5.2 Revenue generated through consultancy services

Item	Financial Year-wise Amount (In Rupees)			
	2011-12	2012-13	2013-14	2014-15
Consultancy charge Received				12000(Incl Tax)
Testing fee received				15000(Incl Tax)

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 policy of the institute in sharing the consultancy income is, 50% with the institute and remaining 50 % is divided among the staff and lab involved. The institute utilizes the amount received through consultancy for enhancing research facilities.

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 institution gives importance to promote the link between the institution and neighborhood community. The following are some of the major organizations functioning in the institute for this purpose.

- **National Service Scheme** plays vital role in establishing a robust network which has got volunteers at a time to organize social outreach programs. A faculty serves as its Program Officer. NSS arrange camp in the nearby village and give assistance to construction of road, treeing, cleaning, electrification etc.

  .
- **Professional Bodies,** like IEEE which promote volunteerism, is present with in the campus.

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

Approach to attract students into the activities, document and track students involvement'

The modes of functioning of various forums are provided below:

National Service Scheme (NSS)

NSS programme officer provides the orientation class for the students and the interested students are selected on the basis of first come first serve. The programme officer is expected to send the monthly and yearly reports in time and conduct the seven days special camp for NSS volunteers and coordinate all the activities of NSS.

IEEE

Faculty in charge conducts awareness programs about the functioning of IEEE chapter and its benefits to the students and the interested students join in the programme.

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

- PTA committee is constituted and conducted frequently to discuss the various issues related to the development of the college.
- Minimum one Class PTA is conducted during the semester.
- Annual general meeting of PTA is conducting on the month of February
- Feedback from students are taken annually
- Feedback through moodle course management system

- Alumni meeting is conducting in the college.

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.

The extension and outreach programmes of this institute are conducted in every academic year with the assistance of local bodies and other socially relevant organizations. The extension and outreach programmes of this institute are planned and executed in every academic year, as per the academic calendar. The college organizes a number of outreach activities regularly, which relate to academic, social, cultural, community service etc. All these culminate in building a healthy society contributing to nation development.

The major extension and outreach programmes are provided in Table 3.6.1 and 3.6.2 respectively.

Table 3.6.1 Activities of NSS

No	Year	Date	Event
1	2016	2/5/2016	Orientation Program Introduction to NSS and NSS activities Responsibility of volunteers
2	2016	6/5/2016	Environmental day (June 5th) celebrations Planted 200 plants (with PTA)
3	2016	13/6/2016	Clean Campus - Plastic free camPus
4	2016	21/6/2016	Yoga day Celebration - Demonstration
5	2016	7/7/2016	District Level Training - NDLM
6	2016	8/7/2016	Started collecting details of students for NDLM
7	2016	22/7/2016	Traffic Awareness - Subha yathra Surakshitha Yathra
8	2016	30/7/2016 31/7/2016	Two Day Camp Beautification of Campus Classes on traditional kerala culture Remembrance of Dr. APJ Abdul Kalam and his words Cultural Events

9	2016	5/8/2016- 7/8/2016	State level workshop of NSS volunteers at MEA Engg College Perinthalmanna
10	2016	12/8/2016	Swacha Bharth - Awareness - Pledge
11	2016	15/8/2016	Independence Day Celebration As the end of Swach Bharth - Cleaned Cheemeni Town in cooperation with Pachayath and health department
12	2016	6/9/2016	Teachers Day (Sept 5) Celebration Seminars by students Honoured Teachers
13	2016	23/9/2016- 2/10/2016	Manaveeyam
14	2016	24/9/2016	NSS Day Celebration NSS Rally Cultural Events
15	2016	2/10/2016	Gandhi jayanthi Celebration Green Carpet Program at Bakel Fort & Beach
16	2016	1/11/2016	Visha Rahitha Vishu – Started Planted 100 banana trees
17	2016	1/12/2016	Day remembrance - AIDS Day Awareness Rally and Speech
18	2016	10/12/2016	Human Rights Day Debate and Seminar by volunteers
19	2016	23/12/2016- 29/12/2016	Special Camp Seven Day Camp at GHSS Cheemeni Jaiva Pachakari krishi Waste Pits for School Health awareness program Digital India - Awareness on Cashless transaction Awareness on Anti Corruption - Vigilance Dept. Kerala Police
20	2017	26/1/2017	Republic Day - Campus cleaning
21	2017	30/1/2017	Lahari Virudha Prathinja
22	2017	27/02/2017 -	Four volunteers attended Three

		01/02/2017	Day Workshop at JDT Polytechnic Kozhikode
23	2017	8/3/2017	Women's Day Celebration Exhibition of Charts and Photos Talk by Dr. Priya Flash Mob

Table 3.6.2 Activities of IEEE

No	Period	Activity
1	2012-2013	QUIZ competition Spectrum talks
2	2013-2014	Audio controller workshop All Kerala WIE Adwaytha Workshop for Adwaytha
3	2014-2015	Java Workshop Robotic Awareness About IEEE QUIZ competition
4	2015-2016	Hosted "DIASTORA YATHRA" INIZIO 1.0
5	2016-2017	Orientation class for First years Workshop on PHP IT industry after BTECH Women's day celebration INIZIO 2.0

		REVENS 1.0

These extension activities give awareness to students about the requirement of the society on various avenues. The students will develop a sense of social commitment. The students get good experience and confidence through interaction with various

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 university affiliated by the institute made compulsory to obtain active points in extra and co curricular activities which include NSS and IEEE.
- Various cultural activities and seminars are included in the NSS camp to attract the students and make the event memorable one.
- Certificates of appreciation are also issued to participants and acknowledged by the head of the institution on the exemplary services rendered.
- The faculty in charge of the NSS gets credit points for the promotion in their career placement
- State level and national level awards are issued for best volunteers and best NSS unit

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?

On NSS Day, we organized some activities in our college. There were individual performances on social issues. Also there were some group activities and presentations. Organized a one day program for all the girls to make them resistive against attacks. Also there was a session on Yoga - "Yoga for Health" with demonstration. It gave awareness about the need for yoga. It also discussed how to become a socially committed human being. Volunteers visited nearby houses our college and discussed how they are disposing waste, especially plastic and electronic wastes. Then gave awareness to people about the following: usage of electricity and water, need for rain water harvesting, preventing measures against diseases, etc.

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 induce knowledge about social welfare in students.
- Activities like NSS and IEEE help the students to interact with people of different section in the community. It helps to create socio ethical and moral values in students
- It also helps to change positively the over all environment and culture of the college.

Outcome: Participation in various socially relevant activities has resulted in inculcating the feeling of being socially awakened citizens among the students. The students who have been a part of this process have been spreading awareness in the institution. They motivate other students to work for the social up liftment and to develop their organizing capacities, programme co-ordination skills, social skills, communication skill and social responsibility. With these extension activities the students acquire the ability to understand the importance of social justice, equality and right of the citizen to speak against anti-social acts.

3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?

The institution makes formal and robust links with the nearby panchayat and corporation for implementing its social reach out programmes. NSS and IEEE are organs of the institution which organizes various extension programmes in coordination with Cheemeni Grama Panchayat. The active participation of the local community is being ensured through:

- Announcement of the programme to the public through distribution of pamphlets about the programme
- Student campaign to the nearby houses

3.6.9 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 is yet to have a formal agreement with surrounding institutions for working on outreach and extension activities. But without any formal relationship NSS and PTA organized number of extension activities in helping the poor and needy communities by providing electrification to poor people, medicines, clothes, shelters, books etc to poor people. Blood donation camps are organized several times.

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

Nil

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.

Nil

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.

The institution has interaction with R&D organizations and industries to carry out

research and consultancy projects. The students are involved in these activities by engaging in the research work of the organization. The ongoing consultancy projects include, the Memorandum of Understanding (MoU) with Infosys and ICST.

The details on the MoUs/collaborative arrangements with other institutions and contribution to the development of this institution are provided in the Table 3.7.1

Table: 3.7.1 MOUs/collaborative arrangement and contribution to the institute

No	Name of industry having Mou/Agreement	Contribution of industry towards development of institution
1	Infosys (campus connect)	Seminar and faculty training for Colleges Accessibility of courseware to increase competitive knowledge of students
2	ICT	Training and placement

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.

- The Institution has interactions with companies like Infosys and ICT academy
- Laboratory facilities especially in Civil Engineering department are used by nearby industries
- Electrical and Electronics Engineering Department has advanced EE lab equipped with harmonic analyser.

3.7.4 Highlighting the names of eminent scientists/participants who contributed to the events. Provide details of national and international conferences organized by the college during the last four years.

Details of international conferences and eminent personalities visited the campus and contributed during the last four years are tabulated in Table 3.7.2

Table 3.7.2 Details of the eminent researchers contributed in conferences

Date	Name and Address of the Eminent Researchers	Activity	Event
Electrical and Electronics Engineering			
21st - 23rd	Dr Chem Nayar, Emeritus Professor, Curtin university of technologies, Western Australia Dr Sudha Balagopal, Principal, Vidya academy of science and technologies		International conference on

Apr. 2016	Dr K KSasi, Professor, Amritha school of engg. Coimbatore Dr Jai Govind singh, Asian Institute of technology, Thailand Dr Sasidhararan Sreedharan, Prof MES college of Engg. Kuttipuram	Invited Talk	emerging trends in smart grid technologies
10th and 11th Mar. 2017	Dr K P Mohandas, Former Nit dean Dr Sasidhararan Sreedharan, Prof MES college of Engg. Kuttipuram Dr Jayaprakash, Professor, Govt Engg College Kannur	Invited Talk	National Conference on innovative power and energy conversion technologies
Electronics and Communication Engineering			
8th - 9th Mar. 2016	Dr. Prasad Krishna Professor, ME Dept, NIT Suratkal Dr.K A Navas, Principal LBSCE Kasaragod Mr. M Manoj, JCMCSIIT, Trivandrum Mr. Sudeep Kumar V P, Sr. Subdivisional Engineer in BSNL Dr. C Sathish Kumar, Professor, Dept of ECE, RIT Kottayam	Invited Talk	National conference on recent advances in communication and electronics
8th - 9th Mar. 2017	Dr.K A Navas, Associate Professor HOD, ECE Govt. College of engineering Kannur Dr. R Biju Kumar, Principal, College of Engineering Trikaripur Dr.Linesh J, Assistant Professor Government College Mananthavady	Invited Talk	National conference on Recent Advances in Communication and Electronics
Computer Science and Engineering, Information Technology			
16th and 17th Feb.	Dr. Mohit P Tahiliani, NIT Suratkal Dr. Annappa, NIT Suratkal	Invited Talk	National Conference On Recent Trends In

2016	Dr. Santhosh, CUSAT		Computer Networks
21st and 22nd Mar. 2017	Dr. Mohit P Tahiliani, NIT Suratkal Dr. B R Chandavarkar, NIT Suratkal Dr. Damodar Reddy Edla, NIT Goa	Invited Talk	National Conference On Recent Trends In Computer Networks

3.7.5 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:

The MOU with Infosys is done for the program called campus connect. Its intention to help the institution to increase the competiveness in the knowledge economy. The campus connect is a model through which Infosys and engineering institutions can partner for competiveness. It conducts seminars and faculty training for colleges and publish various courseware on the web for students.

Twelve linkages / collaboration have actually resulted in formal MoUs. Details are given in Table 3.7.3

Table: 3.7.3 Details of formal MoUs

No	MoU/Agreement With Industry	Contribution of Industry towards Development of Institution
1	Infosys	Placement

a) Curriculum development/enrichment:

The college, as it is affiliated to the University, follows its curriculum and syllabus of the University. However to supplement and enrich the curriculum, experts from these industries visit our institute to give lectures on specific topics to students and faculty. Experts from industries are also members in curriculum development workshops. The Institute and Industries work together to conduct seminars, workshops and conferences in the latest subject areas of common interest, for skill development and continuing education programmes of staff and students of the institute. The institute has formal MoU with industries like Infosys, to achieve the objectives.

b) Summer placement: Nil

c) Faculty exchange and professional development:

FDP conducted by Infosys, various FDPs and STTPs conducted in the college also FDPs and sttps of IIMs IITs ESCI etc.

d) Research: Nil

e) Extension: Institute's extension activities are mainly taken up by agencies NSS and professional bodies like IEEE, which are mentioned in section 3.6

f) Publication: Papers are publishes as a part of phd by faculty members.

g) Student Placement: Eligible Students are getting placement drive through pooled campus drive which is conducting in other cape colleges or govt.colleges through mass job fair conducted by the CAPE students get opportunity to attend various recruitment drive of various companies.

Most of the faculty have many collaborative works with research organization and published papers in association with these organizations in reputed journals.

g) Student Placement: Every year, reputed organizations conduct recruitment in the campus. More than 80% of eligible students placed with good package in India and abroad. Infosys has placed MoU with the institution.

h) Twinning programmes: Nil

i) Introduction of new courses: Nil

j) Student exchange: Nil

m) Any other: Nil

Faculty are members of syllabus revision committee of the University. They are actively participating for including new trends according to the requirement of the industry.

3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/collaborations. Any other relevant information regarding Research, Consultancy and Extension which the college would like to include.

The placement cell and III cell of the institute gives great importance to establish collaboration with various organizations and industries. The placement cell coordinator or IEEE cell coordinator with the assistance of college council start the formal talk with the higher authorities of organization.

CRITERION IV: INFRASTRUCTURE AND LEARNING 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?

- The policy of the institute infrastructure is formulated and implemented by an infrastructure committee constituted by the management.
- The committee ensures a uniform and balanced distribution of space and resources to all categories/departments and also to provide and maintain necessary amenities to staff and students in a time bound manner.
- The committee plans and designs classrooms, faculty rooms, labs etc., complying with the standards stipulated by AICTE.
- The infrastructure required for each department is designed and placed in close proximity (zoned together) to ensure efficient teaching-learning process.
- Develop projects for enhancing the quality of teaching learning process.

4.1.2 Detail the facilities available

a) Curricular and co-curricular activities: Classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, etc. The facilities and equipment for teaching, learning and research are given in table 4.1.1

Table 4.1.1 Facilities and equipments for teaching, learning and research

No.	Facility	Nos./Specialties
1	Class rooms	• UG-20 nos.
2	Technology Enabled Learning Spaces	• Multimedia Projector • Entire campus has Wi-Fi connectivity.
3	Seminar halls/Conference facility	6
4	Tutorial spaces	Most of the labs in all the departments have facility for conducting tutorial sessions. This is used along with free class rooms available as per timetable.

5	Labs including computer labs	• Civil – 9 • Mechanical workshop • Electrical – 8 • Electronics–8 • Computer Science & Information technology – 4 • Computer centre - 1 • Basic Sciences – 3
6	Department libraries	Each department has its own library with good collection of books and journals.
7	Common facility	• CCF (Central Computing Facility) • Innovation and Entrepreneurship Development Cell(IEDC) • Personality Development Cell • Film Club

Class Rooms: Provided with good ventilation, multimedia projector, white/black/green board and notice board

Seminar Halls / Conference Halls: The jubilee hall at the main block is air-conditioned. College also has a PTA hall for meetings and documentation. Each department is provided with a seminar hall and they are well furnished and equipped with the most modern audio-visual systems. The audio visual facilities are digitally enhanced and designed for effective presentations with excellent auditory reception. The college has an air conditioned Jubilee hall having a seating capacity of 160, PTA hall of 20 and each department has a seminar hall which can handle 60 people.

Central Computing Facility (CCF): Central Computing and Browsing Centre facilities can be utilized by staff and students. The centre provides the latest state-of-the-art computers with browsing facilities. The centre functions on all working days and Saturdays from 9 a.m. to 5 p.m.

IEDC: The institution has an Innovation and Entrepreneurship Development Cell (IEDC) which organizes entrepreneurship awareness programs for the students

Central library: Central library has a collection of more than nineteen thousand four hundred and one volumes and four thousand four hundred titles of books and

more than one fifty titles of journals and periodicals, seven e-journal packages e-books and more than 300 CDs

Language Lab: The language lab is provided with ETNL software which helps the students to improve their communication skills. Students can utilize the lab facilities beyond regular working hours.

Internet Facility:

- 10 Mbps high speed leased line facility along with a 100 Mbps broad band connection from National knowledge Network.
- 24x7 Wi-Fi facility in the campus.

b) Extra–curricular activities: Sports, outdoor and indoor games, auditorium, NSS, cultural activities, public speaking, communication skills development, yoga, health and hygiene etc., are some of the facilities provided.

The details of Sports, Outdoor and Indoor Games and Gymnasium are given in Table 4.1.2 below.

Table 4.1.2 Details of Sports, Outdoor and Indoor Games and Gymnasium

No	Facility	No.	Activity
1	Football Ground	1	• Inter semester 7's tournament • CUSAT Inter collegiate Tournament • KTU -F zone Inter collegiate Tournament
2	Cricket Pitch	1	• Inter-Semester Tournaments • KTU-F zone zone Inter collegiate Tournament
3	Basketball Court	1	
4	Shuttle Badminton Court (Indoor)	1	• CUSAT Inter collegiate Tournament • KTU -F zone Inter collegiate Tournament

5	Volleyball Court	1	• KTU -F zone Inter collegiate Tournament • CUSAT Inter collegiate Tournament
8	Table Tennis Hall	1	• KTU -F zone Inter collegiate Tournament • CUSAT Inter collegiate Tournament

Sports meet, inter semester tournaments and coaching camps are conducted every year. The above facilities are also used for daily practice and games by students and faculty.

Cultural Activities, Public Speaking and Communication Skill Development:

Film Club, English development club, Creative club functioning in the campus offer immense opportunities for the students to acquire, improve and demonstrate their extra-curricular skills. Various activities organized are conducted in the college auditorium, seminar halls and in temporary stages setup in the college ground.

Yoga: NSS unit organizes yoga training in the campus occasionally.

Health and hygiene:

- Women's cell organizes awareness program on health and related issues occasionally.
- College canteen and hostel mess are provided with modern equipments to ensure cleanliness and hygiene.
- Water purifiers are installed at various locations to ensure safe and clean drinking water.
- First aid facilities are available in all laboratories.

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 infrastructure development is in line with academic growth. Each department level Infrastructure Committee discusses monitors and reviews all infrastructural works in consultation with the Central Infrastructure Committee to finalize the requirements and to implement the design. Each new requirement is considered by optimally utilizing the available space ensuring the required standards and norms. In the last three years many new facilities have been created and existing facilities have been renovated to meet the growing academic requirements. Some of the examples are listed below.

- A few class rooms are equipped with smart class room facilities. Laboratories are

equipped with the requirements incorporating the curriculum changes.

- Hostels and buildings were renovated.
- Institution has provided new facilities like Innovation and Entrepreneurship Development Center and well equipped Computer centre to meet academic growth and development.

The infrastructure facilities are made available to the students for their maximum utilization such as extended hours for the Central Computing Facility, Department Labs and Central library. Departmental facilities are shared for interdisciplinary and multidisciplinary programs. The amount spent for the facilities during the last 4 years is given in Table 4.1.3

Table 4.1.3 Amount spent for the facilities during the last 4 years (office)

No	Items	2014-15	2013-14	2012-13	2011-12
1	Infrastructure Built up	2060726	1556707	778199	934076
2	Library	120560	-	8350	2405
3	Laboratory Equipments	555159	4301593	-	-
4	Machinery Equipments	555159	4301593	1672800	344881
5	Furniture & Fittings	1305119	-	40200	700123
6	Maintenance & contingencies	170330	234776	124649	

Details of Land area and Built up area

The land area is 1,03,820 sq.m and built up area 16,400sq.m. The details of built up area of different blocks are given in Table 4.1.4.

Table 4.1.4 Built up area of different blocks

No	Block	Area (sq.m)
1	Main block	3025
2	EEE block	1678
3	EC block	1710
4	CS block	1646
5	Civil block	1850
6	Ladies Hostel	2321
7	Canteen	280

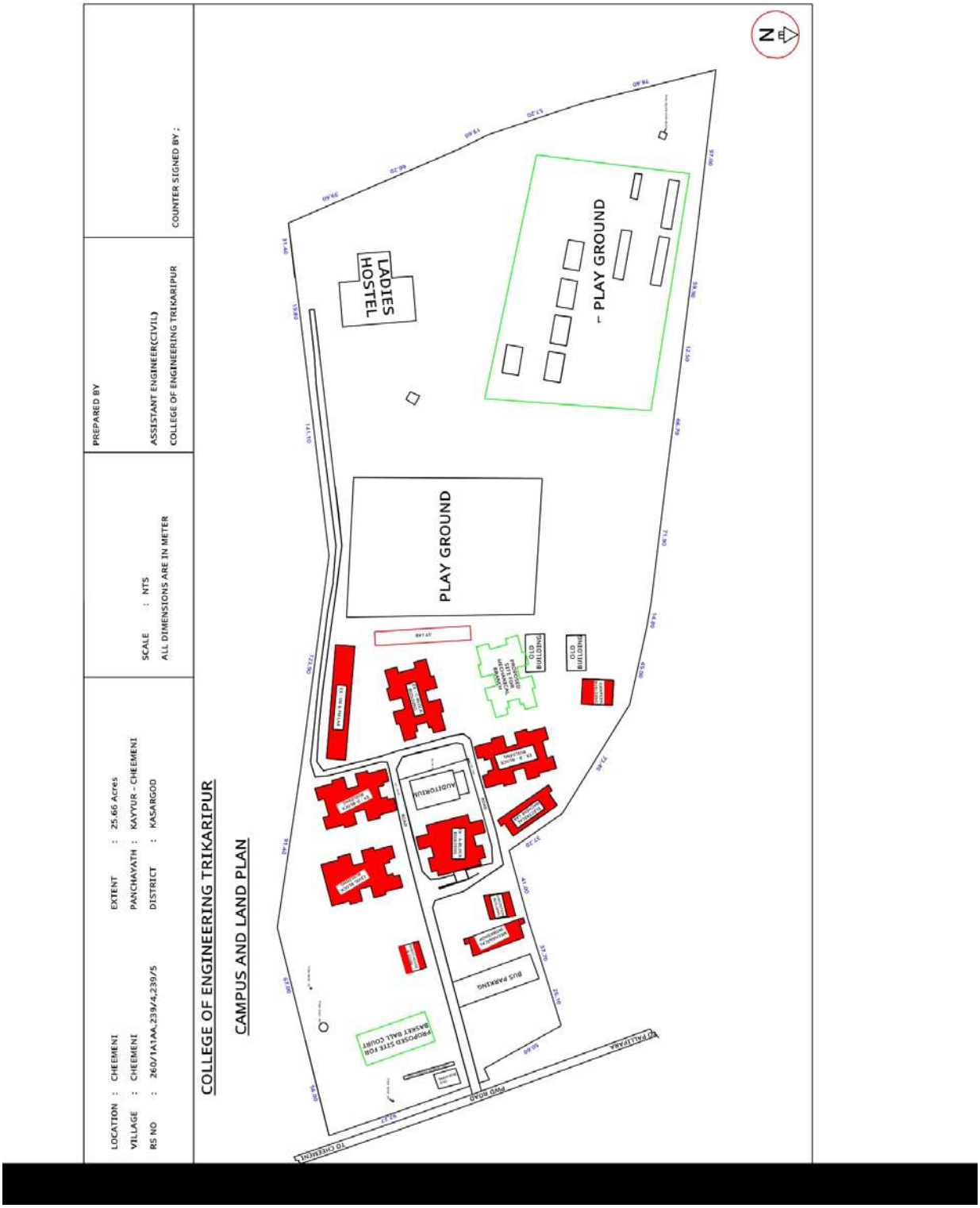


Fig. 4.1.1 Master plan showing existing physical infrastructure

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

For easy accessibility and barrier free environment, the ground floors are provided with ramps for physically disabled students. If a physically disabled student is in the class, the entire batch will be shifted to the ground floor.

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

- Hostel Facility for girls– Accommodation available
- Recreational facilities
- Facilities for medical emergencies
- Library facility in the hostels
- Recreational facility-common
- Constant supply of safe drinking water

Hostel Facilities

There is only one hostel providing accommodation for girls with a total occupancy of 116 inmates. The boys hostel is rented and has an occupancy of 13 inmates. The details are given in tables 4.1.5 & 4.1.6.

Table 4.1.5 Accommodation in Boys Hostel (Rented)

No		No. of Rooms	No. of Inmates
1	Rented house	5	13

Table 4.1.6 Accommodation in Girls Hostel

No	Name of Hostel	No. of Rooms	No. of Inmates
1	Ladies Hostel Main	30	116
2	Mess hall	1	173
3	Kitchen	1	377
4	Store room	2	329

Recreational facilities

There is a play ground for playing football. Also, there are basket ball, volley ball and ball badminton courts in addition to the facilities for playing indoor games such as caroms, table tennis, chess etc..

Facilities for medical emergencies

In case of medical emergency the students are taken to the nearby hospital. Emergency vehicle and driver are available, round the clock, for the college as well as hostels.

Library facilities in the hostel

A reading room is provided in the hostel in which books and magazines of general nature and news papers are available.

Recreational facility-common room

Common reading rooms are available in all the hostels

Available residential facility for the staff and occupancy:
Individual accommodation is provided in the hostels on demand.

Constant supply of safe drinking water
Water is sourced from a tank located in the premises.

Security
There is twenty four hours manned security provided to the entire campus including hostels.

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?

First aid boxes are provided in every laboratory. Emergency vehicle, driver and doctors are available, round the clock upon request.KHM private hospital and a government hospital is available at a distance of 9 kms from college.

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

Career Guidance and Placement Unit (CGPU): This is functioning in the main block with seminar and conference Halls adjacent to it, to enable the smooth conduct of campus recruitment drive. College has also signed two Memorandum of Understanding (MoU) one with ICT Academy, Techno park Trivandrum, for conducting campus recruitment and placement training and the other with Infosys for conducting various training program of Infosys at our campus. Targeting overall development, the following programs are conducted frequently.

- Infosys campus Connect Program
- ICT Academy Training Program
- Seminars and workshops
- Aptitude and soft skill training Programs
- Career guidance camps
- Personality development classes
- Mock tests and interviews
- Group Discussions

Auditorium and other facilities: An open auditorium to accommodate 900 persons and recreational spaces like indoor and outdoor sports and games activities are available for the students and staff. All the institutional and professional associations and organizations like, IEEE,Alumni office, NSS, Students Affairs and related meeting spaces, are located in different parts of the campus on a make shift basis.

Canteen facility: A canteen is functioning inside the campus to provide quality food for the students and staff members at moderate rates.

Safe drinking water facility: Ground water from water purifier is the main source of drinking water in the college campus. Water from the bore wells and open wells are pressure filtered and chlorinated before use. Overhead water tanks are provided in the

main block of the institution. UV treated and filtered water is available in water coolers provided in each block. Routine cleaning of water tanks, coolers and filters are carried out as per fixed schedule.

Transportation facility: The College is 9 away from Cheruvathur and 18 km from Payannur, which are the nearby cities and city buses commute at every ten minutes. Nearest railway station is 12 km from the college campus.

A total of 8 College bus is available for transportation of students, faculty and staff of the college.

ATM facility: A State Bank of Travancore ATM and Catholic Syrian bank ATM is functioning in close proximity to the college campus.

Co operative Store and Reprographic facility: A co-operative society has been established with the object of helping students and staff in purchasing books, stationery and all general commodities at moderate rates. The society is kept open on all days from 9.00 am to 5pm except on Sundays and other notified holidays. A reprographic facility is also functioning along with the co-operative store.

4.2 Library Details

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?

Library as a Learning Resource

Yes. The library has an active Library Advisory committee named as "Library Committee". The composition of the Library Council is as follows:

The Library council consists of Principal as Chairman, Librarian as convener, Head of the Departments from different departments and also a special invite for special cases. The Council meets at least once in a month or as and when required to discuss the functioning of the library and take decisions regarding the purchase of books, e-journals, magazines, journals etc. It also monitors the stock verification.

Initiatives implemented by the Committee

To make the library learner centric and user friendly, following steps were implemented:

1. Campus wide access to e-resources in the library even before it was made mandatory by AICTE.
2. Bar coding implemented in the library and incorporated in the college ID cards.
3. Library timings extended beyond the existing working hours.
4. Arrangement made to provide library user orientation classes for the first year students.

4.2.2 Provide details of the following:

Carpet area of the library (Sq.m.)	: 473 Sq.m
Reading space (Sq.m)	: 270 Sq.m

Number of seats in reading space : 150
Number of users (issue) per day : 75
Number of users (reading space) per day : 50

Number of library staff : 4
Number of library staff with degree in Library management : 4
Computerization for searching, indexing, issue/return records : Yes
Bar coding used : Yes
Library services on Internet/ Intranet : Yes

Archives: Separate section for back volumes of journals and archives of question papers available in the central library for reference.

Timings:

Working days : Reference and Periodical Section, 8.30 am to 5.30pm
Circulation and Book Bank, 9.00am to 4.30pm
Saturdays : Reference and Periodical Section,10 am to 4pm
Circulation and Book Bank, 10am to 3.30pm
Vacation : Reference and Periodical Section, 10 am to 3pm
Circulation and Book Bank, 10am to 3pm

Layout of the library:

The library has the following physical layout/sections:

- Reading Halls 1
- Stack Room – Arrangement is made according to the Dewey Decimal Classification
- Circulation Counter-1
- Property Counter-1
- OPAC (Koha)-1
- Internet Facility Centre (Digital Library)-1 (17systems)
- Back Volumes of Periodicals
- Periodicals Section
- SC/ST Book Bank
- Book Binding area
- Reference Books
- Technical Section
- TEQIP-II Sections

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.

The library procures relevant collection of books, journals, electronic resources. The departmental requirements are consolidated by the librarian and the Library Committee monitors, and send to the head office for the approval and the head office allocates appropriate budget for the procurement. Apart from the departmental recommendations, the librarian purchases books on the basis of expressed demand from users recorded in the suggestion register kept in the circulation counter by the approval of library committee. e- Journals are procured based on the direction from AICTE from time to time. In addition, other useful e-resources are also subscribed.

TEQIP purchase committee is also actively involved in purchase of books to the

central library. The amount spent on procurement of Books/Print Journals/E-resources etc., are given in Table 4.2.1.

Table 4.2.1: Amount spent on procurement of Books/Print Journals/ E-resources etc.

Library holdings	2011-12		2012-13		2013-14		2014-15	
	No	Total cost Rs	No	Total cost	No	Total cost Rs	No	Total cost Rs
Text &Reference	1467	394610	2113	862287	315	961331	953	863093
Print Journals/	42	98955	……		35	68541	62	160633
e-resources	Indest/aicte	52020	IEEE/ ASCE	469620	IEEE/ ASCE	557069	ASCE/ SPRIN	794835
Library holdings	2015-16							
	No	Total cost Rs						
Text &Reference	1054	429072						
e-resources	7 package	1752853	IEEE,ASCE,Springer,Science Direct,MCGraw Hill,J-GATE,ASTM-Digital Library					

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection

- Electronic resources can be searched anywhere from the campus (intranet). The details of E-resources for various disciplines are given in Table 4.2.2

Table 4.2.2 E-resources for various disciplines:

No	Name of the Package	Hyperlink	Subject area
1	ASCE	http://ascelibrary.org/	Civil
2	IEEE	http://ieeexplore.ieee.org/	EEE/ECE/CSE
3	Elsevier	http://www.sciencedirect.com/	All Branches
4	J GATE	http://jgateplus.com/search/	All Branches
5	SPRINGER	http://link.springer.com/	CSE/ EEE/ECE
6	Mc Graw Hill	http://accessengineeringlibrary.co	All Branches

7	ASTM-DIGITAL LIBRARY	http://compass.astm.org	All Branches

In-house/remote access to e-publications

Remote access has been provided to all the electronic resources subscribed in the campus, as the publishers permit only IP authenticated access. The resources are accessible throughout the campus via Wi-Fi.

Library automation

The library is fully computerized using the software "Koha" and it covers all the circulation functions inside the Library.

Total number of computers for user access: 12 Nos

Total number of printers: 2 Nos

Internet bandwidth/ speed: 100 Mbps connection of National Knowledge Networks.

Institutional repository

DSpace of Central Library holds previous years question papers, index of seminar reports, project reports etc. can be accessed through digital library portal.

Participation in resource sharing networks/ consortia (Like Inflibnet)

- Member National Digital Library
- Member AICTE-INDEST consortium

4.2.5 Provide details of the following items

Table 4.2.3: Details regarding library

No	Details	Number
1	Average number of walk-ins	100
2	Average number of books issued/returned including department libraries	120
3	Average number of books added during last three years	1018
4	Average number of login to OPAC	50
5	Average number of login to e-resources downloaded / printed	75
6	Number of information literacy trainings organized	3

4.2.6 Provide details of the specialized services provided by the Library

Manuscripts: Nil

Reference

The library has a separate reference section consisting of Encyclopedias, Dictionaries, and Handbooks, etc. A copy of each of the costly text books are also kept in the reference section and TEQIP-II reference collections with foreign books.

Reprography

Reprographic facility and scanning facility is available in the central library Reading area.

Information deployment and notification

Library notice boards are established in front of the Central library, and in the notice board area in the main block of the college. In addition, circulars and notices are provided through e-mail, SMS, website, notices in the class room etc.

Download

Download facilities are available inside the library and in the campus. Wi-Fi facilities provided in the hostels enable the students to download the required data.

Printing

Printing facility is available in the central library reference area.

In house/ remote access to e-resources

Facilities are provided to access the subscribed resources both inside the library and from the entire campus.

User orientation and awareness

User orientation programs are conducted annually in the beginning of the courses.

Assistance in searching database

Assistance in searching the database is provided in the central library

4.2.7 Enumerate on the support provided by the library staff to the students and teachers of the college

- Library staff provide support and assistance in searching OPAC and locating books
- Make students aware about library numbering system, journals and other facilities
- Provide facilities for seating and reading and keep library premises neat and clean
- Assist the users in digital library searching

4.2.8 What are the special facilities offered by the library to the visually/ physically challenged persons? Give details

Such students are given special assistance by the library staff such as searching the database, selection of books and issue and return of books without any delay.

4.2.9 Does the Library get feedback from its users? If yes, how is it analyzed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analyzed and used for further improvement of the Library services?)

Yes, In order to improve the library services a suggestion book is kept in the

circulation counter. Feedbacks are also received through e-mails. These are analyzed and necessary steps are taken to correct them. Request for books are incorporated in the next purchase order.

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)

Computing facilities are available in each Department and Central Computing Facility of the college. Many licensed software are being utilized for specific applications. Table 4.3.1.provides details of general computing facility

Table 4.3.1 Computing facilities in the college

No.	COMPUTINGFACILITIES	NUMBERS
1	College Office	7
2	Central Computing Facilities	36
3	College Library	12
5	Dept. of Civil Engineering	37
7	Dept. of Computer Science and Engineering/Information	49
8	Dept. of Electrical and Electronics Engineering	24
9	Dept. of Electronics and Communication Engineering	48
10	Dept.of Mechanical Engineering	1
12	Applied Science Department	1
Total		743

Table 4.3.2 Computational facilities

	Particular	Availability	
1	No. of Computer terminals	282	
2	Hardware Specification	Intel (R) Xeon (R) CPU E5-24070 @ 2.20GHz	
		Intel (R) Core (TM) i3	
		Intel Core2Duo	
		Intel Original 3GHz	
3	No. of terminals of LAN / WAN	282	
4	Relevant Legal Software	Windows 2000 server	UML
		Windows 98	Software Design – ADOBE
		Windows 7	MI Power

		Redhat	HFSS
		Windows 2012 server	Model Sim
		Ubuntu	Matlab
		Fedora	Multi sim
		Norton Antivirus	Lab view
		Ms Office 2000	EDA Tool
		Visual studio professional 6.00	Orcad
		StudioMX 2004	Autocad
		Kaspersky internet security	STAAD
		Ms Office 2007	Primavera
		Visual studio professional 2008	
5	Internet Accessibility	100 Mbps	

Table 4.3.3 Licensed Software

Department	Licensed Softwares
Civil Engineering	Auto CAD,STAAD PRO – V8i
Computer Science and Engineering& Information Technology	Norton Antivirus, MS office 2000, Visual Studio professional 6.00, Studio Mx 2004, Kaspersky Internet Security, MS office 2007, Visual Studio Professional 2008, UML, Adobe Design, Windows 2000Server,Windows 7,Windows 2012 server
Electrical and Electronics Engineering	MiPower
Electronics and Communication Engineering	MATLAB 20131,Multisim,Orcad,HFSS,Modelism,Labview,EDA Tool
Central Library	Library automation software used : Koha
College Office	Tally ERP9

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

- Campus Networking Centre provides 24 hours internet services in campus .The Networking Centre is maintained by a dedicated System Administrator. The institution is availing National Knowledge Network connectivity of 100 mbps speed. Entire campus is Wi-Fi enabled and registered users can connect their laptop at any time to access internet.
- The campus has a central computing facility with 36 ACER Desktop computers with

4th gen Corei3 processor, 4GB Ram, 500GB HDD and 16" monitor and HP laser printer. All systems are connected to internet via a 100Mbps structured LAN and these are accessible to students and faculty.

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

College of Engineering, Trikaripur is a TEQIP funded organization. The requirements for up-gradation of existing departmental facilities along with the proposed budget will be put forth to college administration by the end of every academic year. This will be followed by the constitution of Purchase Committees. All the requirements are discussed and decisions are taken for purchase or up- gradation of facilities by the institution management and purchase committees. Tenders are placed online on institution website. Following all the terms and conditions of tendering, the committee finalizes the tender and recommends placing the purchase order. This procedure is followed for the purchase of computers, software and other equipments.

4.3.4 Provide details on the provision made in the annual budget for procurement, up gradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years).

Table 4.3.4 shows the budget allocation for the infrastructure of all computers and their accessories up keeping.

Table 4.3.4 Budget for computer hardware and accessories in rupees

COMPUTER HARDWARE							
Item	2011 – 12	2012 - 2013		2013 – 14		2014 – 15	
	College	College	TEQIP	College	TEQIP	College	TEQIP
Procurement	88194.6302	0	347292	0	6866498	0	0
Upgradation	0	0	0	0	0	0	0
Maintenance	156018.3	156018.3	0	1140	0	3750	225716
Internet	37105	62780		61696		123982	
Total	281317.93	218798.3	347292	62836	6866498	127732	225716

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?

The institution provides adequate computer facility to the faculty and students. Faculty members are provided with computer and internet facility for preparation of teaching and learning resources. For an interactive and effective learning process, some of the class rooms have smart class facility with latest LCD projectors and sound systems. The

institution has a website (http://www.cetkr.ac.in/) which is being updated regularly with all college information.

Campus academics automation system helps in monitoring all the academic activities. Students can access all the course materials uploaded by the concerned faculty members. Exclusive email and SMS facility are being provided for communication between different stake holders of the college.

Institution has a digital library, providing access to a variety of electronic resources such as e-journals, e-books and databases and a good number of open access resources. Classroom discussions with the help of videos and animations are practiced in the course delivery process.

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.

A few class rooms are equipped with smart class facilities and they are used for substantiating the contents of the classroom lectures. Students use the smart class facilities for their seminars and projects presentations. They have direct access to these facilities in the class rooms at their leisure time.

Remedial classes are arranged for students who are weak in learning activities. The e-learning resources in the central library of the college such as e-journals, e-books, databases, and a good number of open access resources are accessible to the students from anywhere at any time in the campus. NPTEL lectures are available in the library for the use of students and faculty.

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?

The institution is availing National Knowledge Network connectivity of 100 mbps speed. Students and faculty can access the e-resources in this programme through internet in the college campus.

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)?

The Table 4.4.1 shows allocation and utilization of available financial resources for the proper maintenance and up keeping of all facilities.

Table 4.4.1 Allocation of resources and funds under TEQIP

No	Activities/Category of Expenditure	2016-17	2015-16	2014-15	2013-14	2012-13	2011-12
1	Improvement in teaching, training and learning facilities						
1(a)	Equipment	21.15	7.76	95.35	187.33	29.37	-
1(b)	Furniture	2.9	-	16.44	26.51	8.56	-
1(c)	Books & LRs & Softwares	-	12.22	12.38	82.1	12.31	-
1(d)	Minor items	-	-	-	-	-	-
1(e)	Refurbishment(minor civil works)	-	14.1	4.97	17.35	10.45	-
1(f)	Consultant services	-	-	-	-	-	-
2	Providing assistantships for increased enrolment in existing and new PG programmes in Engineering &Applied sciences disciplines	-	-	-	-	-	-
3	Enhancement of research and development & institutional consultancy activities	10.75	0.32	0.08	-	-	-
4	Faculty and staff development for improved competence based on traing needs analysis(TNA)	31.94	24.35	14.25	4.38	0.29	-
5	Enhanced interaction with industry	15.38	14.37	2.32	0.27	0.07	-
6	Institutional management capacity enhancement	18.6	-	-	-	-	-
7	Implementation of Institutional reforms	-	0.09	0.87	0.46	8	-

8	Support to student needs	23.91	6.34	10.77	1.54	1.39	-
9	Incremental operating cost						
9(a)	Salaries	4.45	7.31	7.61	3.98	2.8	0.38
9(b)	Consumables	0.71	1.91	1.39	1.27	1.92	-
9(c)	Operation & maintanace	5.68	3.92	1.26	2.64	2.24	-
Total		**135.47**	**92.69**	**167.69**	**327.83**	**77.4**	**0.38**

Table 4.4.2 Allocation and utilization of available financial resources (Office)

Budget -Expenditure Statement (In Rupees)								
Items	2014-15		2013-14		2012-13		2011-12	
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual
Building								
Infrastructure Built Up	62440000		79600000		3015000		5000000	
Furniture								
Furniture & Fittings	2703500		6494100			2767000	2800000	
Equipments & Furniture						10355779	9200000	
Computers								
Computers	4922000					4316900	5133000	
Any other								
Laboratory consumables	289760		350000		439070		200000	
Library	2200000		1000000		1870000		800000	
Miscellaneous expenses for academic activities	35000		25000		25000		60000	
Maintenance & contingencies	275000		100000		800000		500000	
Grand Total	72865260		87569100		6149070	17439679	23693000	

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

College of Engineering,Trikaripur is a TEQIP funded organization. Most of the funds needed by the college is provided by TEQIP.In addition to this, CAPE,the governing body also provide adequate funds.The annual budget and allocation of funds for regular monitoring of utilization of funds for maintenance ensures the upkeep of the infrastructure in the institute. The college has an Infrastructure Committee which is assigned the task of maintenance and upkeep of the infrastructure. Each department has representatives in it. Further, the day to day maintenance of the general infrastructure is done by a Facilities Management Committee.

Each laboratory is under a lab in charge and assistant lab in charge. The technical staff of the laboratory performs the duty of maintenance and upkeep of equipments of each lab under the supervision of lab in charge. Annual stock verification of all the equipments of the college is done by a committee appointed by the Principal for that purpose. The campus networking centre is maintaining the IT services for all the stake holders of the college.

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

The calibration process will be taken up by each department for various equipments as per the time frequency suggested by the supplier of equipment /machinery. Each laboratory is keeping a maintenance and calibration log book for documenting the maintenance and calibration of instruments.

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

For the proper functioning of all activities during the time of power failures adequate measures have been taken. Generator of specification 63KVA are available in the institute, which helps in maintaining continuous power supply without any hindrance to ensure that there is an uninterrupted conduct of the academic activities in the smart class rooms of the college during such situations.

All the departments with computer laboratory facility have their own UPS. Timely monitoring is done to ensure that the systems and the batteries are working well. The department coordinator concerned is entrusted with this job. The electrical works is done in co-ordination with the Department of Electrical and Electronics Engineering for proper guidance.

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

5.1.1 Does the institution publish its updated prospectus/hand book 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 an information brochure/handbook annually, in which the details related to Vision and Mission of the college, historical background, HODs of various departments, advisors of first year students of various departments, details of academic co-ordinator, activities of the Training & Placement Cell (TPC), Anti-ragging Cell, hostel information and faculty in charge ladies hostels, rules and regulations in the college and the hostel, information regarding nearby hospitals, details regarding various scholarships offered by the college etc., are provided. The brochure also includes the description of the college as well as the various courses offered with the approved intake.

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?

Yes. Various Central Government, State Government and National Agency Scholarships are available to provide financial aid to deserving students and they are dispersed on time. List of various scholarships available are listed below.

- MCM: Merit Cum Means Scholarship, Central Government
- E-Grantz (FC): Forward Caste, State Government
- E-Grantz (SEBC): Socially and Economically Backward Class, State Government
- E-Grantz (SC): Scheduled Caste, State Government
- E-Grantz (OEC): Other Eligible Community, State Government

The number of students availed the various scholarships of Central Government, State Government and National Agencies are given in Table 5.1.1

Table 5.1.1 Central Government, State Government and National Agencies Scholarship Details

No	Scholarship	2012-13		2013-14		2014-15		2015-16	
		No	Amount (Rs)	No	Amount (Rs)	No	Amount (Rs)	No	Amount (Rs)
1	MCM	17	20,000	27	20,000	4	20,000		
2	E-grantz- FC	6	6200	2	6200	-		12	6200
3	E-grantz- SEBC	40	6200	34	6200	20	6200	-	

4	E-grantz- SC	11	35000	13	35000	6	35000	9	35000
5	E-grantz- OEC	3	35000	8	35000	18	35000	39	35000
TOTAL		77	1,02400	84	1,02400	48	96200	60	76200

5.1.3 What percentage of students receives financial assistance from state government, central government and other national agencies?

There are a lot of students belonging to economically backward sections of the society. The institution provides financial assistance from the Central Government, State Government and National Agencies to these economically weaker and/or meritorious students. The table 5.1.3 gives the percentage of Government and National level scholarships given to students

Table 5.1.3 Number and Percentage of students who availed Central, State and National Agencies Scholarships

No	Year	No of Students Availed Scholarships	Total Students	Percentage
1	2012-13	77	1139	6.76
2	2013-14	84	1109	7.57
3	2014-15	48	1044	4.59
4	2015-16	60	969	6.19

5.1.4 What are the specific support services/ facilities available for.

1. Students from SC/ST, OBC and economically weaker sections:

The students belonging to SC/ST, OBC and the economically weaker sections are given all the available Central and State Government scholarships. Separate SC/ST Book Bank is made available in the library. Staff Club also contribute donation for physically challenged person.

2. Students to participate in various competitions/national and international levels:

The college encourages participation in various competitions at state and national levels. Along with academics, students are encouraged to participate and involve in NSS, sports activities at state and national level. They are given guidance for preparation and permission to attend various national and international competitions. The financial support needed for registration and transportation are being provided. Grace marks are awarded for those students who have participated in University level competitions as per University norms. Duty leaves are sanctioned for the participants of various competitions. Make up classes for the class hours lost are arranged and retest for the series examination is also given on prior permission, if needed. Sports uniform is provided for college teams in order to participate in various competitions.

3. Medical assistance to students: Health centre, health insurance etc:

First aid treatment is provided for ailing students immediately. First aid box is kept in all the laboratories. Telephone numbers for medical emergency are displayed in each laboratory. Five specialty hospitals with ambulance facility are available within 15 km radius. Response time in calling ambulance from outside is 10-15

minutes.

4. Organizing coaching classes for competitive exams:

Each department in the Institution arranges coaching classes for competitive exams like GATE. Students obtain study materials from department library and central library. Workshops and training programmes are organised for soft skill development for the students. Training for aptitude and reasoning skills are organised for students through Training & placement Cell (TPC).

5. Skill development (Spoken English, Computer literacy etc):

Institution provides special training for developing communication skills. Soft skill development classes are periodically organized by TPC. CAD training is provided for students of Civil Engineering departments. The Language Lab in the college helps to improve the communication skills of students. College has appointed a faculty for improving the communication skills of students. Students can use lab facilities beyond the working hours thereby improving their soft skills. Innovation and Entrepreneurship Development Cell (IEDC) improves entrepreneurship skills of the students.

6. Support for "slow learners":

The institution understands that there are students who require extra care and attention in learning compared to other students. Advisors identify such students based on their performance in the internal assessment tests and overall conduct in class and within the campus. An advisor regularly meets these students to help them to overcome their stumbling blocks. Each department organizes remedial classes/peer-learning for those students who are struggling to cope with the demands of the course. Also, tutorial sessions in small group are provided for such students. Re-test and makeup tests are conducted for the slow learners. Regular motivation and counselling from the faculty and proctors also help the slow learners to overcome their barriers.

7. Exposure of students to other institution of higher learning/ corporate/ etc:

All departments used to conduct educational tours and industrial visits to esteemed institutes of learning, industries, business houses etc. College arranges lectures/workshops by experts from reputed institutions like IITs, IISc, NITs and companies like KSEB, BSNL, BELL, INFOSYS etc. All departments arrange industrial visits for the students to get a first-hand information about the industries and processing technologies. NPTEL videos are accessible for students through central library. Students are encouraged to do their final year project in reputed industries.

IEDC also brings up innovative ideas and exposure of its members to other institutions and the corporate world. IEDC is keen in providing the students with a glimpse of what they are going to face in the coming years and an insight into what to do. The students are brought in contact with eminent personalities from various Start Ups or business houses and hence they learn to network and get in touch.

IEEE also plays an important role in organizing workshops and seminars by inviting eminent personalities from other institutions like IITs and business houses.

10. Publication of student magazines:

The purpose of the magazine is to facilitate the students to express their thoughts and ideas freely and also to develop and hone their literary, planning as well as management skills. Financial support is given by college for publishing student's magazine. A faculty member will be in charge of Editorial Board for assessing the quality of articles and monitoring the publication of college magazine.

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

- The college has set up an Entrepreneurship Development Cell for promoting entrepreneurship
- The college has also setup an innovation club to enhance the creative idea of students
- Expert talk/workshops are conducted to enhance the skill of students under III Cell
- Infrastructure facility of the college is open to students for testing their ideas under a Guide

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 encourages the students by providing financial assistance to participate in co-curricular activities, such as quiz competitions, seminars and conferences and cultural activities. The students have also brought fame to the institution by winning various competitions. Grace marks are awarded as per University norms for those students who participate in University level competitions.

Flexibility in internal examination in the form of make-up test is arranged for those students who participated in various curricular and co-curricular competitions. Proper recognition is given to the winners of various competitions. Sports uniform is provided for college teams for participating in various competitions.

The college has NSS unit and cultural clubs which are coordinated by members of faculty. Each department has association, which organizes technical sessions with invited experts from respective engineering streams for the benefit of students.

Cultural clubs organize various events apart from the annual cultural and professional competitions. Students are encouraged to participate in intercollegiate competitions also. Students enthusiastically participate in the annual college arts festival organized by college union. Professional Body societies like IEEE organizes technical expos and workshops

Sports council

Policy and Working Procedure:

The institution runs a separate physical education department with a qualified faculty number with doctorate in physical education.

Sports council consists of Principal as the Chairman, HoD (Physical Education) as the Secretary, and representatives from faculty, students, non teaching staff and other employees.

The sports council has the following basic functions

- Formation of sports calendar

- Ensure better participation of students and staffs in the sports & games related activities.
- Provide organized training and practices for various sports and games.
- Create a better sports environment that may stimulate a disciplined campus setting
- Planning and organization of all sports related events

Additional academic support, flexibility in examinations

- Duty leaves are sanctioned for students participating in various competitions
- Make up class for the class hours lost are arranged, if needed
- Retest for the series examination is given on prior permission, if needed

Special dietary requirements, sports uniform and materials

- Sports uniform is provided for participants in competitions
- Sports materials are supplied for practice and tournaments

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 Central/ State services, Defense, Civil Services etc.

The institute provides support and guidance to the students in preparing for the various competitive exams. Notifications related to competitive examinations are informed in time by displaying the same in the notice board for the awareness of students. Institution also provides the facility to access NPTEL e-learning materials and e-journals. Individual department also provides coaching classes for GATE examination. Reference books for competitive examinations are available in department and central library. The list of students from different branches who qualified in GATE examination is given in Table 5.1.4.

Table 5.1.4 No. of students qualified in GATE Examination

No	Year	CE	EE	CSE	ECE	IT
1	2013-14	4	9	5	4	-
2	2014-15	3	4	6	3	-
3	2015-16	1	6	4	3	1

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

Personal and career counseling for the students are arranged by the institution as per the recommendation from senior advisers and HoDs. Students who need special attention and care are identified and directed to expert counselor with the consent of parent/guardian. Welfare Grievance cell makes decisions concerning student welfare, takes up issues reported by students and resolves them by bringing it to the notice of the Principal.

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If yes, detail on 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)

Yes. Training and Placement Cell (TPC) have been functioning effectively in the institution since 2000 onwards. The TPC of the college works as a team under the leadership of a senior faculty member as coordinator. The team consists of committee members from each department and a group of dedicated students. Every activity of TPC is monitored by the coordinator. The placement unit is committed to invite reputed companies to facilitate the recruitment process in the campus. The TPC plays a vital role in enabling the students to secure employment in Multi-National Companies and reputed organizations through campus recruitment. The TPC also assists students in industrial visit/training and project outside the institute (Industries/ R&D organizations). The TPC arranges periodic soft-skill training and personality development programmes. The major recruiters include companies from IT and IT Enabled Services, Banking and Finance, Construction, Indian Army etc.

Experts from the industry/potential employers of our graduates/alumni often visit the college and interact with faculty and students to enlighten them about the challenges faced by the industry. Inputs from the industry are also sought while designing the curriculum.

Services of TPC

- Liaison with industry
- Identify the requirements and provide soft skills training to students
- Student academic counseling
- Arrange campus interviews
- Industrial training and placement of students
- Propose annual budget of TPC.

The Table 5.1.5 provides the details of placement offers from various recruiting companies.

Table 5.1.5 Details of Placement as on 29 February 2016

No	Company Name	CE	EEE	ECE	CSE	IT	Total
1	WIPRO			4	1	1	
2	INFOSYS		1	2	1		
3	COGNIZANT TECHNOLOGY SOLUTIONS (CTS)		2	4	2		
4	SLK SOFTWARE			3			
5	US SOFTWARE		1	1			
6	TATA CONSULTANCY				1		
7	POORNAM			1			
8	ALL SEC TECHNOLOGIES		1	5	19		

The details of placement offers obtained in the previous academic years from various recruiting companies are included in Annexure.

Table 5.1.6 provides the percentage of eligible students who obtained placement during previous four academic years.

Table 5.1.6: Details of Placements during previous four academic years

No.	Dept.	2013-14			2014-15			2015-16		
		Eligible Students	Placed Stud.	% Placed	Eligible Stud.	Placed Stud.	% Placed	Eligible Students	Placed Stud.	% Placed
1	CE	41	14	34				40	-	
2	CSE	36	18	50	32	16	50	32	24	75
3	ECE	34	11	32	30	15	50	33	20	60
4	EEE	34	4	11	35	5	15	33	5	15
5	IT	12	7	58	17	4	24	10	1	1

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. A Grievance Redressal Cell is constituted with a Principal as Chairman to address the grievance of students. Formerly, grievances of students were handled by Grievance cell.
List of grievances reported and redressed during past 4 years (SAC)

1 SAC conducted prima facie enquiry on students' disciplinary issues.
2. Duty leave issues were addressed by SAC.
3. Anti ragging awareness camps were organized by SAC.

In addition to Grievance Redressal Cell, an Anti-Ragging Cell is also functioning effectively in the college for helping students. Hostel Committee headed by the Chief Warden and the Deputy Chief Warden address the grievance of hostel employees regarding salary hike, working hours etc. The committee also addresses the grievances of students in the hostel. Women Cell is constituted with a female faculty as Chairperson and girl students as members to address the grievances of women. Also, staff club of the college with the Principal as President, a faculty member as Secretary and members from each department as representatives functioning in the college addresses the grievance of faculty members.

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

As per the Gazette notification of Government of India an Internal Complaints Committee has been set up in the institution to deal with Prevention, Prohibition and Redressel of sexual harassment of women at workplace. The committee takes required steps to ensure a safe working environment for each woman within the institution.

To protect and safeguard the rights of girl students and to bring about growth and development, a Women Cell also functions in the college. The aim of the Cell is to create awareness among girl students about their duties and rights and to provide a conducive environment for women staff and students. The cell, headed by a senior

lady faculty, looks into any matter related to harassment of women faculty or students. The institution has taken a decision to handle very strictly against sexual harassment, if any.

Staff club also addresses the grievance of faculty members. Sexual abuse and harassment has not been reported so far.

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

Yes. There is an Anti-ragging Cell. An anti ragging squad is functioning under this cell. The Anti-ragging Cell functioning in the campus offers protection to the students from the menace of ragging. Staff members from different departments are the members of the committee. Monitoring is done on regular basis at all prominent zones of student's interaction. The college has hoarded awareness boards along with contact details inside the campus and hostel premises for reporting complaints, if any.

Functions and Responsibilities are,

- Ensure a ragging free campus by implementing the directions from regulatory bodies
- Formulate anti ragging squads and supervise their activities
- Arrange display boards enhancing anti ragging
- Arrange anti ragging awareness programmes for the students/parents/faculty and staff with the help of Government authorized agencies/ organizations
- Collect affidavit against ragging from the students/ parents/faculty and staff
- Initiate follow up action on reported/noticed incidents of ragging
- Forward the enquiry reports to the Principal for further disciplinary actions

No ragging incidents have been reported during the last four years.

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

The Student Affairs Committee addresses matters pertaining to the welfare of undergraduate students in the institute. The college provides a number of scholarships and free books to the students on the basis of their performance in academics, sports or extra-curricular activities.

Provide financial support for attending conferences, seminars, sports and other major events

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

Yes. The institution has a registered Alumni Association, of old students .All the students of the college shall be eligible to become members of the association. The Alumni Association helps to build a network of the alumni and helps in being in touch with the corporate world. The Alumni association was formed in 2007-08. From 2010-11 onwards the alumni become active. Alumni Bangalore unit was formed in 2010-11

and still functioning successfully.

Activities of Alumni Association

- An amount of Rs 4000/-per branch and a total of 12000/ was given as scholarships for each year.
- Alumni association was sponsored a volley ball court to the college.
- Alumni association also give a medical assistance for the students.

5.2 Student Progression

5.2.1 Provide the percentage of students progressing to higher education or employment.

Table 5.2.1 provides the information about student progression in various departments.

Table 5.2.1 Student Progression

Student Progression	Year of Pass out			
	2013	2014	2015	2016
Civil Engineering				
Employed through campus selection		14		
Employed other than campus recruitment	32	20	15	-
Computer Science and Engineering				
Employed through campus selection	67.24%	64.4%	5087%	61.11%
Employed other than campus recruitment	6.89	8.47	7.01	3.7
Electrical and Electronics Engineering				
Employed through campus selection	12%	11%	15%	15%
Employed other than campus recruitment	25	10	10	10
Electronics and Communication Engineering				
Employed through campus selection	32%	32%	50%	50%
Employed other than campus recruitment				
Information Technology				
Employed through campus selection	25%	31.81%	13.79%	4.76%
Employed other than campus recruitment	-	-	-	-

The college has been consistently encouraging students to go for higher education apart from seeking employment. Special coaching classes are regularly being held in the campus to encourage students in this respect. A number of students have joined PG courses so far, as testified by Table 5.2.1.

5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (batch wise as stipulated by the university).

Table 5.2.2 Pass Percentage for the last four years

UG Programme	Year of Pass out			
	2013	2014	2015	2016
Civil Engineering	57	79	62	65
Computer Science & Engineering	51.67	55.38	47.06	30.30
Electrical & Electronics Engineering	53.8	47.2	57.5	56.9
Electronics & Communication Engineering	54.92	48.57	44.11	50.76
Information Technology	68.75	54.55	58.62	47.62

5.2.2. How does the institution facilitate student progression to higher level of education and/or toward employment?

College of Engineering Trikaripur believes in not just providing quality education but also in giving students a fair chance to use the acquired knowledge, by helping them placed/employed in reputed organizations. TPC has been instrumental in inviting reputed firms to the institution to recruit students through on-campus placement drives and job fairs. The cell provides training programmes to make students better- equipped to face such recruitment tests and interviews. Higher educational opportunities in nationally and internationally acclaimed institutions are also intimated to the students regularly by the cell and also by individual departments. Each department organizes special classes and training classes for students who are preparing for competitive examinations, namely, GATE. The institution has always remained affirmative to students receiving in-plant training in well-known organizations to foster an engineering thinking and technical skill in them. Seminars, workshops and talks by eminent personalities are organized by the institution to help students to be better technocrats.

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

The institution understands that there are students who require extra care and attention than others. Such students are identified and supported at the department and institution level. Individual advisors identify such students based on their performance in the internal assessment tests and overall conduct in class and campus.Advisors regularly meet these students to try and help overcome their stumbling blocks. To aid such students, each department organizes remedial classes for those who are struggling to cope with the demands of the course.The performance of students in assessment tests and their conduct at college is communicated with parents. PTA meeting are organized by the college department-wise to facilitate discussions about student's curricular and extra- curricular performances. On the basis of feedback a support mechanism is formulated based on remedial/peer-learning exercises. These initiatives build confidence in them and help such students to perform well.

5.3 Student Participation and Activities

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

College of Engineering Trikaripur conducts a lot of extracurricular activities. A qualified physical education trainer is made available for organizing all sports activities of the college. Every year inter collegiate tournaments are organized for cricket, football, table tennis, volleyball, badminton and chess. Annual sports day is conducted every year in which the skills of students in athletics and other jump and throw items are showcased. In addition to this university selection trials are conducted and students have also participated in university level games. In the past few years there were a number of university representations from our college. Our college was university runner up and champions in the event volleyball in the past years. The healthy sports culture is evident in the college off-hours, especially in the evenings, when most of the students are seen preoccupied with sports activities of their choice.

List of Sports Instructors:

- Dr. Geetha,P.V , (Head, Dept. of Physical Education)

List of sports and games facilities available

- Football field
- Cricket field
- Basketball court
- Badminton court
- Volleyball court
- Table tennis hall

Around 100 students participate in inter-collegiate tournaments every year. Most of the students participate in Annual Sports Meet. Large number of students practice sports and games in morning and evening regularly for physical fitness. Sports calendar for the current year 2015-16 is shown in Table 5.3.1 and details of important tournaments held in previous years 2014-15 is given in Table 5.3.2 and 5.3.3

Table 5.3.1 Sports Calendar 2014-15

No	Event	Date
1	CUSAT Inter collegiate Football Tournament	25/1/15- 29/1/15
2	CUSAT Inter collegiate Badminton Tournament	16/1/15-18/1/15
3	CUSAT Inter collegiate Volleyball Tournament	26/1/15- 29/1/15
4	CUSAT Inter collegiate Basketball Tournament	26/1/15- 29/1/15
5	CUSAT Inter collegiate Cricket Tournament	18/1/15 -24/1/15
6	CUSAT Inter collegiate Table Tennis	16/1/15

Table 5.3.2: Details of Tournaments conducted in 2015-2016

No	Tournaments conducted	Date
1	CUSAT Inter collegiate Cricket Tournament	11/1/16-17/1/16
2	CUSAT Inter collegiate Chess Tournament	16/1/16
3	CUSAT Inter collegiate Football Tournament	18/1/16- 22/1/16
4	CUSAT Inter collegiate Shuttle Tournament	19/1/16 – 22/1/16
5	CUSAT Inter collegiate Volleyball Tournament	19/1/16-22/1/16
6	CUSAT Inter collegiate Table Tennis Tournament	21/1/16-22/1/16

Table 5.3.3: Details of Tournaments conducted in 2016-2017

No	Tournaments conducted	Date
1	KTU F-zone Table Tennis Tournament	19/11/16
2	KTU F-zone Football Tournament	12/11/16 – 13/11/16
3	KTU F-zone Cricket Tournament	16/11/16 – 20/11/16
4	KTU F-zone Volleyball Tournament	19/11/16 – 20/11/16
5	KTU F-zone Badminton Tournament	11/2/17
6	CUSAT Inter collegiate table Tennis Tournament	19/1/17- 20/1/17
7	CUSAT Inter collegiate Chess Tournament	20/1/17
8	CUSAT Inter collegiate Football Tournament	23/1/17 - 27/1/17
9	CUSAT Inter collegiate Volleyball Tournament	23/1/17 - 22/1/17

Details of sports activities of previous years are included in the Annexure.

Extracurricular and Cultural Activities

The students are motivated to participate in cultural and other extracurricular activities. College arts fest is being conducted every year to encourage students to participate in University arts festival.

Details of extracurricular activities

NSS Activities

The NSS unit of the college is enthusiastic to organize various activities for the benefit of the society. The funds for the various activities are provided by the University. NSS volunteers are students from various departments. The activities of NSS play a vital role in inculcating commitment to the society. The various activities of NSS Cell for the current academic year is listed in the Table 5.3.3

Table 5.3.3 Activities of NSS Cell 2015-2016

No	Event	Date
1	Orientation Program.	2/05/2016
2	Environmental day Celebration. Planted 200 plants	6/05/2016

3	Clean Campus- Plastic free campus	13/06/2016
4	Yoga day Celebration- Demonstration	21/6/2016
5	District Level Training – NDLM at LBS	7/07/2016
6	Traffic Awareneness – Subha Yathra Surakshitha Yathra	22/7/2016
7	Beatification of Campus Talk on traditional kerala culture. Remembrance of Dr. Abdul Kalam. Cultural Events	 30/7/2016 31/7/2016
8	State level workshop of NSS volunteers at MEA Engg College Perinthalmanna.	5/8/2016 To 7/8/2016
9	Swacha Bharth – Awareness - Pledge	12/8/2016
10	Seven day special camp conducted at Meenakshi Vilasam VHSC School	20/12/2015

Technical and Cultural Activities of the College

Technical fests are organized in the institute with a lot of events which help to develop the technical as well as managerial skills in addition to showcasing the cultural talents of the students.

I addition to this there is a film club to spread awareness about the technicalities involved in film industry and the updations that have been taking place with the advent of technology. Students also participate in the University Youth Festival, and technical/ cultural fests organized by other institutes.

5.3.2 Furnish the details of major student achievements in curricular, co-curricular and extracurricular and cultural activities at different levels : University /state etc for previous 4 years.

(a) Students Achievements in Curricular Activities.

2014

- Anusree K, Computer Science department secured 3th Rank in B.Tech Degree Exaination, CUSAT Cochin.
- Sethu Civil Engineering department secured 3nd Rank in B.Tech Degree Examination, CUSAT,Cochin.

2015

- Sreya M V, Civil Engineering department secured third rank in B.Tech DegreeExamination in CUSAT.

(b) Major achievements of students in co-curricular, extra-curricular and cultural activities

The students of the college regularly participate in various programmes within and outside the institution and have bagged prizes. Students have also published technical papers in various national and international conferences. The

detailed list is given in the Annexure.

No	Publications	2014-15	2015-16	2016- 17	Total
1	International Conferences		1		1
2	National Conferences		3	1	6

5.3.3 Furnish the details of major Institutional achievements in curricular, at different levels : University /state etc for previous 3 years.

College had acquired 33rd rank in Kerala Technological University and first rank in Kasargod district for the year 2015-16 and also 34th rank in KTU during the year 2016-17.

5.3.4 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 TPC collects feedback from senior executives of various companies who visit the campus for the purpose of campus interviews. The executives also provide information on the performance of our students already placed in their companies. These feedbacks are passed on to the concerned departments to take necessary remedial actions. Based on this feedback, the departments improvise the teaching and learning process. Department also conducts Course Exit Surveys for getting the valuable feedback from the students about the curriculum.

5.3.5 How does the college involve and encourage students to publish material like college magazines, and other material? List the material brought out by the students during the three academic sessions.

Students co- ordinate with teachers in organizing and publishing magazines and participate in various national and international conferences.

The Table 5.3.5 gives the list of magazines brought out by our students during the previous years.

Table 5.3.5: College Union Magazines

No	Year	Name of Magazine	Students editor	Staff editor
1	2010-2011	EPISTLE	Rahul K.V	
2	2011-2012	August 1944	Nithin G	Mr.Nithin.T
3	2012-2013	GULMAKAI	Abhijith	Mr.Sreekanth P

5.3.6 Does the college have a student council or any similar body? Give details on its selection, Constitution and Funding

Yes. Every year students elect their representatives to form the College Students Union

and their respective association secretaries through college union election. The college provides a college union fund, which is collected from the students for union activities along with the first installment of tuition fees at the beginning of each academic year and the same is credited to the college union fund. The college union has an Executive Committee consisting of:

- Chairman
- Vice-Chairman
- General Secretary
- Councilors to the Kerala University Union (Two Members)
- Editor of the College Magazine
- Arts Club Secretary
- Secretary of Sports
- One member representing the students of each year elected by the students of respective year among themselves
- Two lady representatives elected by the lady students of the college from among themselves.
- Treasurer and Staff Advisor

5.3.7 Give details of various academic and administrative bodies that have student representatives on them.

The college has various academic and administrative bodies that have student representatives in them as given below:

- College Union
- Course Committee
- Hostel Committee
- National Service Scheme (NSS)
- Training and Placement Cell (TPC)
- Students Grievance Cell
- Women Cell
- Library Council
- Department Associations

CRITERION VI: GOVERNANCE LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1.State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

Vision of the Institution

To be a premier institution in education and research for moulding technically competent and socially committed professionals.

Mission of the Institution

- Promote interdisciplinary research and innovation so as to meet the current needs of industry and society.
- Attract, nurture and retain the best faculty and technical manpower.
- Provide state of art facility for quality technical education.
- Develop personality and professional skills of the students through interaction with alumni academia and industry.

By promoting interdisciplinary research, the institution can bring out new technological developments and engineering products that are useful to meet the needs of the society.

By make use of competent technical manpower, the institution can impart fruitful technical deliberations, seminars, workshops and consultancy works to the public.

Using the good infrastructure and state-of-art lab facilities and libraries institution moulds professionally skilled students. Through the interactions with alumni, academia and industry, the students will have a good awareness on professional ethics and current technical scenarios.

Value oriented training grooms the students into good social being with high moral values.

6.1.2. What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

The institution constantly strives to achieve the mission which in turn results an institution quality policy. This quality policy is emerged from the discussions conducted at various department level and institutional level committees.

These are conveyed and scrutinized in the Internal Quality Assurance Cell and send to the Principal for the approval. IQAC includes internal faculty members also.

Top management makes timely intervention based on the principal report to maintain the quality.

6.1.3. 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 and consultations with the stakeholders**
- **Reinforcing the culture of excellence**
- **Champion organizational change**

The leadership takes special care to ensure participation of the institution in the academic, social and technical domains.

- **The policy statements and action plans for fulfillment of the stated mission:**
  The policy statements have been framed with a view to accomplish the stated mission. Excellence in professional education and research through social, economic and environmental perspectives are made possible through the contributions of Internal Quality Assurance Cell, Research Council, Academic Committee, Ethics Committee etc.
- **Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan:**
  The action plans framed by various committees are approved by the top management. These are consolidated and plans for each year are implemented, ensuring that the academic activities, research and development, training etc., result in good academic and placement records.
- **Interaction with stakeholders:**
  Consistent contact is maintained by the institution with the external stakeholders and their inputs are sought in all ventures related to the development of the college. The executive and general body meetings of the PTA, Merit Evenings and Open Houses are forums to interact with the parents.
- **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**
  - The leadership organizes forums for interactions with stakeholders.
  - These forums include staff council, PTA, alumni, students union etc.
  - Conduct regular meeting of faculty, staff, parents, alumni and students.
  - Prepare annual budget.
- **Reinforcing the culture of excellence:**
  - The institution provides opportunities for research and career development of the faculty.
  - Institution deputed a senior research advisor and R&D coordinator for enhancing research activities of the institution.
  - Formed innovation clubs in different departments to express the ideas of staff and students.
  - Faculties are motivated by giving financial aid to get enrolled in various professional bodies.
  - The good academic ambience and policies followed have contributed

to high placement records and University ranks of students, which serve as a mark of excellence.

- The leadership constantly reviews these standards and tries to enhance it through creative suggestions.

- **Champion organizational change:**
  - Leadership ensure the activities like industry oriented add- on courses, invited lectures by eminent scholars and experienced industrialists.
  - Encourage faculty and students to attend conferences and present technical papers in various national and international programmes.
  - Motivate to attend Workshops and FDPs/SDPs at various institutes.
  - Motivate to organize in-house training programs and conferences.
  - The labs, library and other infrastructure facilities are provided and maintained properly.
  - Promoting extracurricular activities by organizing arts fest, sports, NSS, film clubs.
  - Evolved strategies are delivered to stakeholders on time.

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?

Some of the procedures followed by the institution include:

- Council and various committee meetings such as PTA, discipline, anti-ragging cell etc. are held to monitor and review the functioning of the institution. Corrective actions are taken, if found necessary.
- Meetings, exit surveys, employer surveys etc. are conducted to interact with stakeholders.
- Employee appraisal system is followed by collecting feedback from students.
- Review the performance of students in University/Internal examinations and conducts remedial classes for better results.
- Review the performance of staff and students systematically through Moodle feedback system.

6.1.5. Give details of the academic leadership provided to the faculty by the top management?

The top management provides a favorable environment to the faculty to enhance their academic capabilities. The faculty plays active part in various academic committees in the department and institution level. Major decisions are taken by Staff Council in which includes Principal, Head of the Departments and senior faculty members. Each departments are headed by senior most faculty member appointed by top management.

Also various faculty members have opportunities to hold the different responsibilities like:

- Institution level academic advisor
- Academic coordinator
- EAP coordinator
- III cell coordinator
- R&D coordinator

- Finishing school coordinator
- Examination coordinators (CUSAT &KTU)
- Recruitment board members
- Professional body members
- Class tutors, Staff advisor
- Lab-in-charge
- PTA secretary
- Arts secretary

6.1.6. How does the college groom leadership at various levels?

The institution grooms leadership at the following levels:

Principal:

The leadership quality of the Principal is expected to improve by performing the following duties, responsibilities and undergoing trainings.

- The top management maintains constant interaction with the Principal and is fully aware of the developments and day to day functioning of the college.
- All major academic and administrative decisions are taken by the Principal in consultation with Heads of Departments and faculty/staff concerned.
- Head of the Institution is trained for enhancing leadership/management capability through different management programmes in premier management institutes.
- Periodic review meetings are conducting at Minister and Director chamber for institutional well-being.
- Meeting with MLA and PTA executive members.
- Delegation of powers such as, Financial, sanctioning of leave, appointment of temporary staff/ faculty.

Heads of Departments:

The leadership quality of the HoD is expected to improve by performing the following duties, responsibilities and undergoing trainings,

- All the departmental academic and administrative decisions are taken by the Heads of Department in consultation with the Principal and faculty/staff concerned.
- Presiding of class committee, course committee, class PTA, department staff meeting regularly.
- Head of the Departments are trained for enhancing leadership/management capability through IIMs, IITs and other premier institutes.
- Delegation of powers such as subject allocation, assign tutors, proposing the class committee/ course committee chairman, approval of department timetable and assigning workload.
- Recruitment board member

- Evaluation of appraisal of faculty members.

Faculty Level:

The leadership quality of the Faculty is expected to improve by performing the following duties, responsibilities and undergoing trainings,

- Class tutorship
- Conducting and attending class committee, course committee, class PTA regularly.
- Attending department staff meeting.
- Faculty members are trained for enhancing leadership/management capability through IIMs, IITs and other premier institutes.
- Faculty members are attending pedagogical training at IIT Madras.
- Members of the class committee, course committee, and timetable committee.
- Recruitment board member
- Assessment of faculty members through student's feeback.
- Lab-in-charge
- Result analysis
- Institution level academic advisor, Academic coordinator, EAP coordinator, III cell coordinator, R&D coordinator, Finishing school coordinator, Examination coordinators (CUSAT &KTU),Recruitment board members, Professional body members, Class tutors, Staff advisor, Lab-in-charge, PTA secretary, Arts secretary

Student Level:

The leadership quality of the students is expected to improve by undertaking the duties, responsibilities, organizing and participating in various collegial activities, and undergoing trainings such as follows,

- Class representatives
- College union.
- Annually conducting sports meet, arts fest and college day celebration.
- Professional body membership.
- NSS activities.
- Departmental association activity.
- Soft skill and technical skill training.
- Students evaluate the classes in Class Committee Meetings and put forward suggestions for improvement of faculty members.
- Activities under EAP and III cell
- Career and guidance cell.
- Students' grievance cell.

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?

- Department is headed by Head of the Department.
- All the departmental decisions (academic and administrative) are taken by the Heads of Department in consultation with the Principal and faculty/staff concerned.
- Presiding of class committee, course committee, class PTA, department staff meeting regularly.
- Delegation of powers such as subject allocation, assign tutors, proposing the class committee/ course committee chairman, approval of department timetable and assigning workload.
- Act as a permanent panel member in all the committees for selecting adhoc appointments.
- Analysis of appraisal of faculty members.
- Evaluation of appraisal of technical staff members.
- Co-curricular and Extra-curricular activities organized by the departmental association are led by HoD.

6.1.8. Does the college promote a culture of participative management? If 'yes,' indicate the levels of participative management.

Yes.

- The top management maintains constant interaction with the Principal and is fully aware of the developments and day to day functioning of the college.
- All major academic and administrative decisions are taken by the Principal in consultation with Heads of Departments and faculty/staff concerned.
- College has an active college council which is constituted with HoDs and senior faculty members.
- The principal conducts faculty/staff meeting.
- Department meetings are conducted regularly for discussing academic and managerial matters.
- PTA meetings are conducted annually.
- Class committee and course committee meetings are conducted regularly to improve the academic activities.

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?

The Institution has a formally stated quality policy which has been formulated based on the Vision and Mission of the college.

- Institution quality policy has evolved through deliberations with stakeholders in

college council meeting, faculty/staff meeting, college development committee, PTA.

- Institution formed an internal Quality Assurance Cell (QAC) under a quality cell coordinator. The committee includes nominees from each department and this cell ensures the deployment of quality policy.
- Periodic review is done by internal audit cell under QAC at the end of each semester and reports are submitted to QAC.

6.2.2. Does the Institute have a perspective plan for development? If so, give aspects considered for inclusion in the plan?

Yes.

- To get accredited by NBA.
- To start PG programmes in all departments.
- To be a research center in core and allied branches.
- To engage in collaborative research with academic and scientific institutions.
- To get research funding from different agencies.
- To undertake sponsored research programmes for industry.
- To encourage faculty participation in conferences and seminars
- To encourage faculty to publish research articles in journals
- Enrich students to achieve academic excellence by improving academic interactions (faculty-academia, student-academia), academic performance and employability of students and research facilities (in labs and library).
- Institution development is linked to sustainability and social commitment.

6.2.3. Describe the internal organizational structure and decision-making process.

- College of Engineering Trikaripur is owned by Cooperative Academy of Professional Education(CAPE) and is situated in Kasaragod district
- The administration of the college is vested in CAPE which is established by Govt. of Kerala with Chief Minister as Chairman and Minister for Cooperation as Vice Chairman.
- Overall governance, budgetary decisions, appointments etc. are carried out by the Director of CAPE.
- Organizational structure is shown in the Fig. 6.2.1 below. Overall governance, budgetary decisions, appointments etc. are carried out by the Governing Body. Overall organizational structure including all academic committees is shown in Fig. 6.2.2. Student related matters are finalized by the appropriate committee and approved by the appellate bodies as given in the Fig.6.2.2.

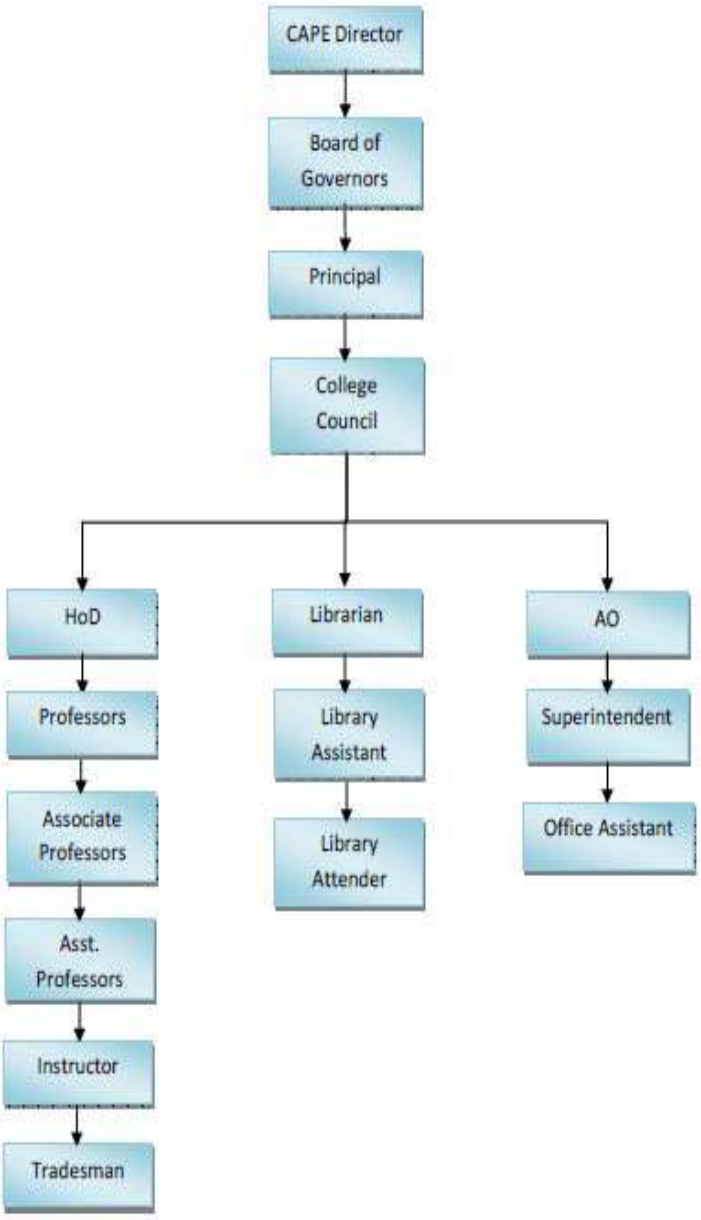


Fig. 6.2.1 Organizational Structure

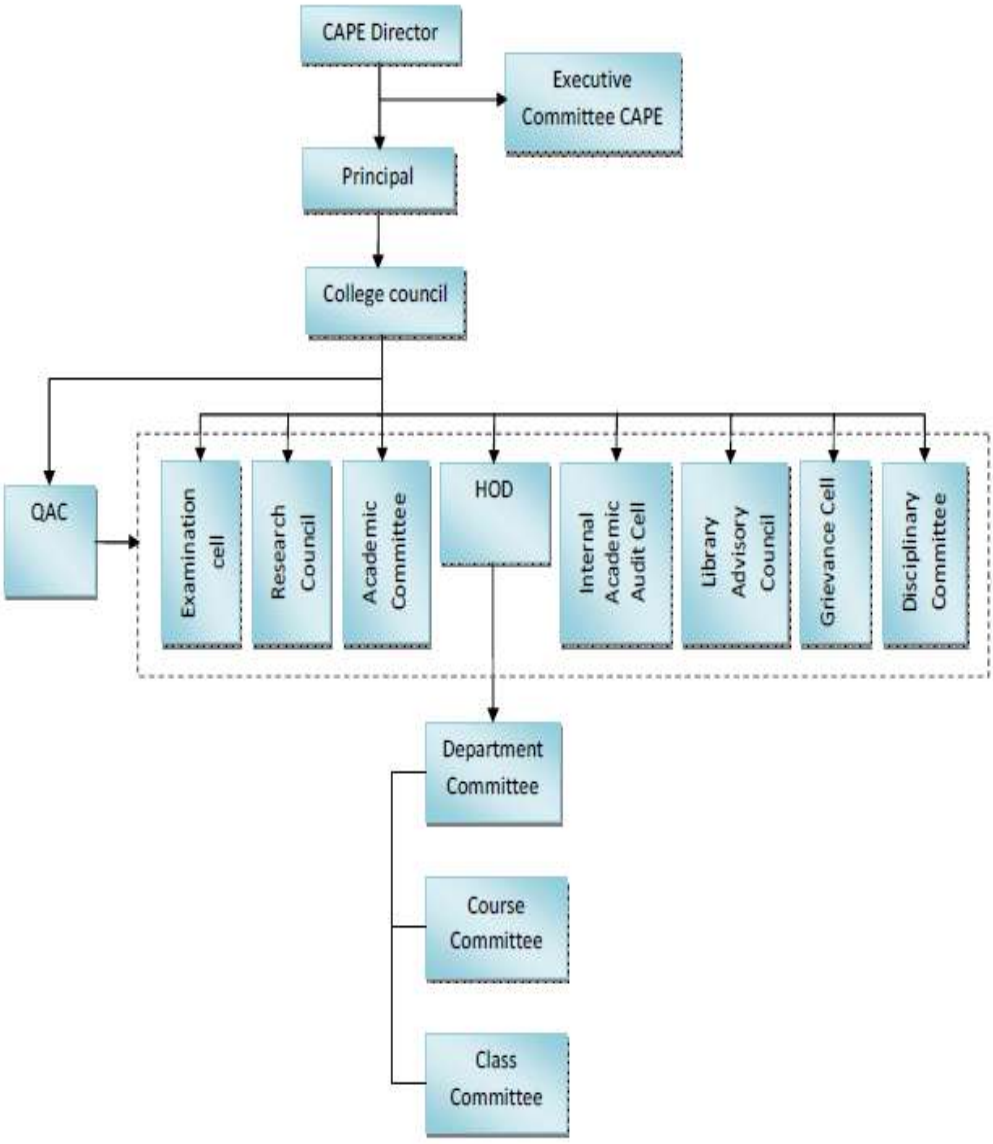


Fig. 6.2.2 Academic Committees

6.2.4. Give a broad description of the quality improvement strategies of the institution for each of the following

The institute is committed to impart quality education. This is accomplished through the following strategies:

Teaching and Learning:

- Pedagogical training for faculty
- Encourage the faculty to attend FDP, STTPs and workshops.
- Sharing of experience by faculty after attending FDPs, STTPs
- Smart classrooms are arranged for enabling effective teaching learning process.
- Faculty encouraged applying for funded projects.
- Faculty encouraged participating in national and international conferences.
- Adopt projects such as TEQIP which facilitates all these procedures.
- The course committee and class committee are conducted for improvement of

teaching- learning process.

- Evaluation of teachers by students through feedback mechanism.
- Workshops, expert talks and seminars are conducted for students by resource persons from different premier institutes and industries.
- Encourage students to undertake internship programs.
- Remedial classes for students.
- Conduct annual class PTA meetings to convey the teaching learning process to the stakeholders.
- Feedback from stakeholders.
- Students participation in conferences, workshops, technical fests organized by institutes and professional societies.
- IEEE Professional society activity

Research and Development:

- Promote research by faculty under QIP at premier institutes.
- Part-time research activity is encouraged.
- International/ National conferences and colloquium are conducted
- MoU with industries and research organizations.
- Infrastructure developments by the Management.
- Well-equipped library with e-learning facility.
- Encourage students to take-up research projects.
- Encourage the faculty members to attend national conferences.

Community Engagement:

- National Service Scheme (NSS) activities are organized round the year which includes service to local primary schools, blood donation camps.
- Workshops/Expert talks on road safety, self defense for women
- Continuing education cell formed to conduct different courses for local people.
- Energy management cell is involved in energy conservation awareness by distributing stickers and posters.
- Professional organizations, IEEE student chapter volunteers are promoted to participate in community developing projects.

Human Resource Management:

- Recruitment of faculty and staff by state-wide common test and interview organized by CAPE by following the norms and regulations of government of Kerala, AICTE and Directorate of Technical Education.
- Career advancement policies framed by CAPE following the norms of the Government of Kerala.
- Recruitment panel contituted in the college for the selection of AdHoc faculties and staff.
- Pay norms as per AICTE and Government of Kerala norms are followed.
- Pay revisions as per the norms laid down by AICTE and Government of Kerala.
- Staff club formed for the well-being of all the staffs.
- Formulated effective transfer policies.

Industry Interaction:

- Formed III cell.
- Expert lectures by industry personnel.
- Hands-on training/workshops for students by resource persons from industry.
- Encourage students' internship in industries.
- Consultancy work is promoted.

- MoU with industries.
- Industrial visits for students organized by the respective department.

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?

- College council is constituted with Principal, HoDs and senior faculty members.
- PTA executive meeting with Principal as president, senior faculties and representative of parents as members is convened frequently.
- PTA general body meeting is convened annually.
- Department staff meeting is verified by the Principal.
- Evaluation of appraisal of faculty/staff members is verified and forwarded to top management by the Head of the Institution.
- Faculty can approach the Head of the Institution at any time duringthe working hours.
- Frequent meetings are conducted by top management with Head of the Institution to discuss the academic and non academic matters.

6.2.6. How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

- Duties are assigned to faculty/staff members.
- Based on the feedback and appraisal report, Principal makes appropriate remarks and then forwards to the Management to obtain annual increment.

Feedback is collected and conveyed to the respective faculty/staff members for improving their efficiency.

- Academic committee of the institution ensures the timely functioning of academic matters.
- Faculties are encouraged to apply for external funding.
- QIP is promoted by the top management for improving the quality of faculty members.
- Faculty members are encouraged for enrolling part time research program.
- Staff members are encouraged for higher studies on part time basis.
- Top managements encourage staff members for higher studies on loss of pay for those who are not eligible for QIP and ensure job security.
- Different committees are constituted with faculties and staff as members for the smooth functioning of institution.
- Actions are also taken based on the request submitted by the faculty.

6.2.7. Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions

No	Resolutions	Status
1	The Principal shall submit a quarterly report on the academic and other activities of the college and the report will be discussed by the Management with the Principal and would suggest improvements if any.	Implemented
2	Submit annual report of the Institution	Implemented

3	Upload SAR for NBA for three eligible UG courses (EEE,ECE,CSE)	Implemented
4	The Departments of Computer Science and Engineering, Electrical and Electronics , Electronics and Communication Engineering shall start PG courses after getting the courses accredited	Pending visit of the accreditation team
5	Conduct National and International conferences.	Implemented
6	With a view to attain higher over all pass percentage, each semester results shall be assessed and to discuss with the Principal, Heads of Departments and faculty members concerned. There by increase the placement of eligible students.	Implemented
7	All vacant posts of teaching, technical and other non-teaching staff shall be filled up	Implemented

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. The proposal is pending with the Government.

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?

- Grievance cell is formulated in the college with Principals chairman and senior faculty members as coordinators.
- Grievances of the stakeholders forwarded by Principal are considered in the grievance cell for swift action.
- The functioning of grievance cell includes the regular meeting of the cell, awareness to students, collection of the grievances through class tutors, collection the complaints through the boxes provided in each departments and blocks.
- As per the Gazette notification of Government of India an Internal Complaints Committee has been setup in the institution to deal with Prevention, Prohibition and Redressal of sexual harassment of women at workplace
- Any grievance or inadequacy felt in this aspect can be immediately raised before any of the following redressal forums: Grievance Redressal Cell, Student Affairs Committee, Anti Ragging Cell and College council.
- An enquiry committee appointed by the Principal investigates serious issues brought up in any of the aforesaid platforms. Requisite action, as outlined by the enquiry committee, is expediently taken.
- Suggestion boxes are made available in the campus.
- Complaints and grievances are also raised by the students in Hostel Committee meetings.
- Faculty grievances are addressed in Department meetings and Grievance Cell

and the serious issues are discussed in college council.

- Parents can express their suggessions and complaints to the Principal, PTA, Grievance Cell, Anti-ragging Cell, Hostel Management Committee, Head of the Department and class advisors.

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?

Nil

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.

- Student Feedback on faculty performance, infrastructural facilities, co-curricular and extra curricular activities.
- Graduate Exit survey is conducted on a yearly basis separately for each program.
- Based on the student feedback, a perfomance index is calculated. In case, the performance index is low for any faculty, HoD intimates and suggest remedial measures for improvement.
- Sanctioning of faculty annual increment is also based on performance feedback from students.

6.3. Faculty Empowerment Strategies

6.3.1. What are the efforts made by the institution to enhance the professional development to fit teaching and non-teaching staff?

Teaching staff

- Faculty members are deputed for attending the training programmes in subject domain conducted at reputed institutions.
- Organizes in-house training programmes, FDPs, workshops and seminars.
- Faculty members are attending pedagogical training at IIT Madras.
- Faculty members are trained for enhancing leadership/management capability through IIMs, IITs and other premier institutes.
- Provide financial assistance for Professional body memberships.
- Institution encourages the Faculty members to upgrade their qualifications through QIP.
- Institution provides platform for faculty members to improve research activities through national and international conferences, seminars and colloquiums.
- Encourage faculty members to publish the papers in conferences and journals by providing financial assistance.
- Motivate faculty members to take up funded projects.

Non-teaching staff

- Workshops are organized for non-teaching staff to improve their technical skills and communication skills
- Non-teaching staff are sponsored to attend training programmes at various institutions
- Demonstration training programmes are arranged for non-teaching staff when

new equipment/software is purchased

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?

- Institution appointed a senior faculty member as academic advisor for monitoring academic activities.
- Academic committee constituted under TEQIP-II coordinates various academic programs.
- Promotes faculties to update their technical skill through various FDPs, STTPs and workshops.
- Improve management capabilities and soft skill of faculties through MDPs.
- Staff club is formed and organizes various activities for the well-being of all the staff.

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 institute follows an effective performance appraisal system for faculty and staff members.
- Faculty has to submit appraisal report annually to the Principal through respective HoDs.
- Along with this appraisal form, students' feedback also taken. This feedback is done through Online/Manually.
- Based on this feedback and appraisal report, Principal makes appropriate remarks and then forwards to the Management.
- The Faculty Appraisal form includes three major sections, such as General Information, Performance Related Data and Summary Report of the Principal.

General Information includes Membership of Professional Societies apart from the qualifications and basic information of the Faculty.

Performance Related Data has the sub-sections

- Subjects taught
- Learning Resource Development/ Curriculum Planning work done.
- Project submitted for Institutional Development.
- Major consultancy work undertaken.
- PhD thesis/MTech thesis guided.
- Publications.
- Details of training undergone and other self-development programmes undertaken.
- Management of student hostels, student counseling and other student services rendered.
- Continuing Education Programmes Co-ordinate.
- Administrative responsibilities undertaken.
- Sponsored R&D work undertaken.
- Co-curricular/Extra-Curricular activities organized participation in sports and cultural activities.

- Accomplishment in Academic Direction and Administration.
- Any other relevant information.

For the staff, the Performance Appraisal Form includes Part I and II. Part I includes Basic information, Educational and other qualifications, Experience, Self Assessment and Assessment by the Reporting Officer, Remarks on Physical disability or Health positions and Remarks of the Reviewing Officer / Authority.

Part II is a Confidential report which is filled by the Reporting Officer. In this report, the employees' loyalty, Integrity and General Reputation have to be remarked.

In the Assessment by the Reporting Officer section, following factors are evaluated on a grade basis. The highest grade is Grade A (Max. marks 10) and lowest is Grade D (No marks). The factors are

1. Intelligence
2. Discipline
3. Punctuality
4. Responsibility and Dependability
5. Interest in the assignment
6. Job knowledge.
7. Noting, drafting and Correspondence
8. Maintenance of Registers and Records.
9. Work Turnover.
10. Proficiency in Computer.
11. Minus points for Punishments.

Evaluations of teachers by the students are conducted online/manually. The frequency is two per semester and a performance index is computed. Then the authority intimates the faculty members on their teaching methods and enables them to adopt appropriate corrective actions, if necessary.

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?

- Annual increment of faculty/staff is sanctioned based on appraisal report.
- HoDs suggest proper corrective measures to the faulty/staff members whose performance index is below the threshold (i.e., 70%).
- The decisions made by the authority are conveyed to faculty/staff through proper office orders.

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?

- Faculty/staff is eligible for benefits and leave such as Provident Fund, gratuity, commuted leave, maternity leave, earned leave, paternity leave, casual leave,

leave surrender option and LWA.

- The faculty are granted leave for pursuing higher studies and provides basic salary during the leave period under QIP.
- Faculty pursuing part-time research can also avail leave for six months with basic salary during this period.
- Transportation facility is provided for the faculty/staff in subsidized rate.
- Canteen facilities, co-operative store and services of a doctor are available on call.
- More than 60% of the staff have availed these welfare schemes during the past years.
- On the auspicious occasions, staff club provide financial support/gifts for the faculty/staff.

6.3.6. What are the measures taken by the Institution for attracting and retaining eminent faculty?

- Pay norms fixed as per AICTE/UGC and State Government norms.
- Give financial support for qualification upgradation.
- Encourage the faculty/staff for attend FDP/SDP in reputed institutions by providing financial support.
- Financial assistance for research paper publication in journals and conference proceedings.
- Faculty benefits Provident Fund, gratuity, commuted leave, maternity leave, earned leave, paternity leave, casual leave, leave surrender option and LWA.

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 major sources of fund are received from CAPE (for recurring expenditure and fixed assets), fee collected from students, TEQIP fund, PTA fund and MP/ MLA fund.

- Salary bill is submitted monthly to CAPE to receive the fund.
- Salary is credited to the SB account of individual faculty/staff members.
- Department budgets are prepared annually.
- Institution budget proposal is prepared annually and submitted to CAPE.
- The TEQIP funds are effectively monitored by purchase and finance committees. The funds are utilized with the approval of BoG.
- All the purchases are under the supervision of purchase committee constituted formally.
- All the payment of bills are under strict scrutiny of finance committee constituted formally.
- External audits are conducted by auditors from CAPE and TEQIP to verify the optimum utilization of the available financial resources.
- Authorized person of all the financial transaction of the institute is Principal.

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 details on compliance.

The institution has two types of audit

1. External audit conducted annually by CAPE.

2. Internal audit conducted annually by college administration.

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 reserve fund/corpus fund available with the institution.

The major sources of institutional funding are:

- Tuition fee
- PTA fund
- Alumni fund
- Grant from Government

The deficit of fund has not been reported so far

The management provides the necessary funds to meet the deficit, if any.

Corpus fund is maintained in a separate account and 0.5% of the income generated is adding to this fund annually.

The audited income and expenditure statement of academic and administrative activities of the previous four years are given in Annexure G.

The detailed audited statement is available in the website.

6.4.4. Give details on the efforts made by the institution in securing additional funding and the utilization of the same.

The additional funding are:

- Grant received from TEQIP fund
- MLA/MP fund
- Testing all types of materials and equipment.

The revenue generated from consultancy is utilized for upgrading the laboratories and for department development activities. The above mentioned funds are used to enhance and upgrade existing facilities, organize short term courses and enhance the technical expertise of the faculties. The scholarship amounts are distributed to the students according to their merit.

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 has an internal quality assurance cell. The Quality Assurance Cell in our institution was re-constituted as IQAC on 13/10/2016. The following members monitor the implementation of the quality policy:

- Principal

- Coordinator (IQAC)
- Two external members
- Two senior faculty members
- Student representative
- Alumni representative
- Two members from administrative side.

The policy of the IQAC is to improve the academic performance of the students there by enhancing the reputation of the institution through:

- Program accreditation
- Strengthening students' placement
- Supporting students interest for higher studies
- Infrastructure development
- In faculty development

(b) How many decisions of the IQAC have been approved by the management /authorities for implementation and how many of them were actually implemented?

Sl. No.	IQAC Proposal	Management approval status	Status
1	NBA accreditation	Approved for 3 courses	SAR uploaded
2	NAAC accreditation	Approved	SSR uploaded
3	ISO certification	Approved	Internal audit completed, Certification audit awaiting
4	Placement drive	Approved	Implemented
5	Soft skill training for students for enhancing placement	Approved	Implemented
6	GATE coaching for promoting the students for enrolling in higher studies	Approved	Implemented
7	FDP/ SDP/Conference/ Seminar/Workshop	Approved	Implemented
8	Seminar hall with video conferencing system	Approved	Implemented

9	Renovation of mechanical and electrical workshop	Not Approved	Not Implemented
10	Qualification upgradation	Approved	Implemented

(c) Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

Yes. The external members are Dr. Joseph O A, Principal, College of Engineering, Vadakara and Dr. Prathapachandran Nair, Retd. Joint Director, Technical Education, Kerala. They give suggestions and guidelines to organize conferences, remedial classes and colloquiums.

(d) How do students and alumni contribute to the effective functioning of the IQAC?

There are student representatives and alumni representatives in the committees of IQAC to ensure its effective functioning. He supports IQAC activities and contributes to its effective functioning. They regularly interact with members of IQAC and attend the committee meetings. They give creative suggestions for the successful functioning of IQAC.

(e) How does the IQAC communicate and engage staff from different constituents of the institution?

The IQAC formulates the guidelines for the quality improvement policies and communicates with department HoDs. The HoD discusses it in the department meetings/class committee meetings/course committee meetings/Class PTA and communicates with the IQAC. The IQAC includes teaching faculty representing all departments and senior staffs from administration. This will ensure involvement of all levels of employees in the institution for maintaining quality policy.

6.5.2. Does the institution have an integrated frame work for quality assurance of the academic and administrative activities? If 'yes,' give details on its operationalisation.

Yes. The institution has an integrated frame work for quality assurance of the academic and administrative activities through IQAC. This IQAC includes academic peoples and administrative peoples such as faculty members, administrative staffs and students. A periodical meeting of this committee discusses the matters regarding the status, review and plan of quality implementation of respective quarters. The necessary inputs are received from various committees in the department level and institution level. These include BoG, College Council, Staff meeting, PTA executive committee meeting, Class PTA meeting, course committee meeting, class committee meeting.

As part of ensuring quality policy, the faculty in each department prepares a course file for all semesters which includes study material, lesson plan, course objective mapping, program objective mapping and result analysis.

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 provides faculty development programmes for effective implementation of the quality assurance procedures. The faculty members are trained for

- Accreditation and certification procedure (conducted by IIM and ESCI).
- Academic excellence (conducted by IIT Madras).
- Enhancement of management capacity (Conducted by IIMs).
- Faculty development programmes conducted by various institutions.

The outcomes of such training programmes are

- Faculty members got familiarized with preparation of course files and other procedures for preparedness for accreditation.
- Implementing active-cooperative and student centric learning process for effective course delivery.
- Evaluation of course outcome based on Bloom's taxonomy
- Improved management skill and holding various administrative position
- Upgraded the skills and knowledge of the faculty in their subject domain and the technical advancements in various disciplines.
- Motivated for taking up research activities/consultancy work
- Presented technical papers in national/international conferences

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 internal and external academic audit.

Internal academic audit cell constituted by incorporating faculty members from different departments. The internal academic audit team monitors and verifies the activities such as ensuring the completion of the syllabus, quality of the question papers/projects/seminars, details of tutorial/remedial classes conducted, evaluation of assignments/tests and maintain the data of all academic activities. The audit report is submitted to HoD and necessary actions are taken to improve the academic activities.

The external academic audit is conducted by KTU twice in each semester. The audit report is uploaded in the university website.

Outcome:

- In case of discrepancies, suggestions are given to the respective faculty for compliance.
- Extra lecture hours are provided by the respective faculty, if actual course delivery and plan is much deviated.

6.5.5. How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

The institution has quality assurance mechanism in the form of IQAC. The IQAC tries its best to comply with the requirements of ISO, NAAC, NBA, UGC, AICTE, CUSAT/KTU, State Government and Human Resource Ministry of Union Government.

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?

Following mechanisms are used to continuously review the teaching learning process.

- BoG meeting
- Staff council meeting
- IQAC, Internal Quality Assurance Cell
- IAAC, Internal Academic Audit Cell
- Course Committee
- Class Committee
- Class PTA
- Mid Semester and End Semester Teacher Evaluation.
- Course Exit Survey

Structure:

- BoG –
    - BoG Chairman
    - 2/3 Academicians
    - Industry person
    - State Govt. representatives
    - Management representatives
    - 2 Internal senior faculty members

- Staff council
    - Principal, HoDs, PTA Secretary, Librarian, Staff advisor, one senior faculty
- IQAC
    - Principal
    - Coordinator (IQAC)
    - Two external members
    - Two senior faculty members
    - Student representative
    - Alumni representative
    - Two members from administrative side.

- IAAC

  One faculty from each department
- Course Committee

  Chairman, faculty members handling the course, 2 student representatives from each class
- Class Committee

  Class tutor, all the faculty members handling the courses in the class, 2 student representatives
- Class PTA

  Class tutor, all the faculty members handling the courses in the class, parents

Methodologies of operation:

BoG meeting, Staff council meeting, IQAC, IAAC, Course Committee, Class Committee, Class PTA are conducting regularly. The feedbacks from these meetings are the measures to review the teaching learning process. Student's feedback is collected twice per semester. Course exit survey enables to evaluate the entire programmes, institution level achievements apart from the departmental performance evaluation.

Outcome:

- Result improvement
- Enhanced employability
- Enrollment in higher education increased
- Resource persons for external programmes

6.5.7. How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

For internal stake holders:

Instructions are given periodically to teachers and students through Principal's meetings, HOD meetings, group sms, circulars and website. The communication is also done through the institution/department notice board. The Director(CAPE) addresses both students and faculty/ staff members during his institutional visit.

For external stake holders:

The communication is done through college website, college brochure/prospectus, PTA meeting, Alumni meeting, advertisement and programme brochures

CRITERION VII: INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

7.1.1 Does the institute conduct a Green Audit of its campus and facilities?

No, the institute does not conduct a Green Audit of its campus and facilities. However, an Environment Club has been constituted in the institute. It works along with the NSS coordinators and volunteers with the aim of preserving the nature and reducing the pollution and use of plastic in the campus.

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

a) Energy Conservation
   i) IEEE student chapter, EEE Association and NSS Unit of the institute always tries to make students and staff aware of the need for conservation of energy. Stickers are put up in all the classrooms, staff rooms and labs to encourage and remind everyone to switch off lights and fans when not required.
   ii) The institute has replaced CRT monitors with LED monitors to reduce the consumption of energy
   iii) The institute has begun the process of replacing incandescent bulbs with tube lights and CFL.
   iv) The UPS in the departments are turned off in the evening before the staff leaves the institute.
   v) The UPS batteries are maintained in good condition to enhance the battery life.
   vi) The use of air conditioners is restricted to computer labs and seminar halls in the institute.

b) Use of renewable energy
   i) Expert talks and workshops on topics such as Solar Panel Designing are organized in the campus for encouraging staff and students to use renewable energy sources.
   ii) Every year at least one project in EEE department is related to the use of renewable energy sources.

c) Water Harvesting
   i) As of now the institute is not having water harvesting system. However, a pilot student project for the designing of water harvesting is in progress. Plot is identified near the college ground for setting up the system. The institute is planning to get the fund from NABARD with the help of local self government authorities.

d) Efforts for carbon neutrality
   i) The college has a transportation system that encourages staff and students to use common transport facility to reduce carbon emission. This facility is used by around 45% of students of the institute. Other students mainly rely on public transportation system.
   ii) It is estimated that only 10% of the students and 25% of the staff are using their own motor vehicles to reach the institute.

iii) Only LPG cylinders are used in the girls' hostel for cooking.
iv) Food waste from the canteen and the girls' hostel are used to feed animals in nearby farms.
v) NSS conducts programs periodically to create awareness among the staff and students about the need for keeping the campus plastic free.
vi) On the World Environment Day, June 5th of 2016, NSS unit along with the PTA planted 200 plants in and around the campus.
vii) On Kerala Piravi, November 1st of 2016, NSS unit along with the PTA planted 100 banana trees in the campus

e) Plantation

i) PTA along with the NSS unit is trying hard to keep the institute green by doing cultivation on nearly 50 cents of land in the campus.
ii) The vegetables from the plantation are occasionally sold to the staff and students of the campus itself.
iii) Special care is taken not to use pesticides by giving focus to organic farming.

f) Hazardous Waste Management

E-waste management:

The old and obsolete computers and UPS in the institute are periodically sold by inviting tenders. Printer cartridges are refilled instead of buying a new one which helps in reducing the e-waste.

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 college.

- Digitalization of Central Library
- Introduction of Digital Library as part of the Central Library
- Introduction of Remedial Classes for weak students
- MoUs with Industries
- Financial Assistance for staff to attend trainings/FDPs through TEQIP II
- Trainings and Expert Talks for the students through TEQIP II
- Financial Assistance for faculties to pursue higher studies through TEQIP II
- Smart Classrooms
- Department Libraries
- Wi-Fi enabled campus
- Introduction of Moodle
- Introduction of Feedback system
- International and National Conferences

7.3 Best Practices

7.3.1. Elaborate on any two best practices as per the annexed format which have contributed to the achievement of the institutional objectives and/or contributed to the quality improvement of the core activities of the college.

Title of the Practice I: Collective Efforts of PTA and NSS Unit to improve the Quality of Life of the Society

Goal

The goal is to inculcate in students and staff of the institute a culture which gives

importance to the well being of the people in the society. The institute in its vision is striving to mould socially committed professionals and initiatives taken by the PTA and NSS tries to realize this vision.

The Context

The education system devised by the universities is not enough to create professionals with social values. Society is becoming reluctant to offer help to those who are in need of it. People are giving less importance to the need for preserving the nature for the better future.

The Practice

PTA co-ordinators and NSS volunteers tries to improve the quality of life in the society through steps like the following.

A step towards making the planet livable:

- Existing trees are protected and new trees are planted whenever possible. On environment day 200 plants and on Kerala Piravi 100 bananas were planted in the campus.
- Organizes events to create awareness about plastic free environment, Swachh Baharat and traffic rules.
- The environment is kept clean to avoid spreading of diseases. On Republic Day the campus was cleaned by the volunteers.
- Efforts are taken to create awareness about the need for clean and green environment. As part of the Independence Day celebrations the Cheemeni town was cleaned. Through the Green Carpet Program conducted on Gandhi Jayanthi the Bekal Fort and Beach were made clean.

A helping hand for the society:

- Electrification of a house was done free of cost with cooperation of local government authorities.
- As part of the Annual NSS camp waste pits were made at Government Higher Secondary School, Cheemeni.
- An awareness program on cashless transaction was organized for the public.
- Visits nearby houses to create awareness on things like the usage of electricity and water, need for rainwater harvesting and adopting various preventive measures against diseases etc.

Evidence of success:

As an outcome of the efforts by PTA and NSS unit, the institute is able to produce young professionals with social commitment. Attracted by the activities carried out by the team, more students are voluntarily joining the NSS unit in the institute. More help is offered by the parents and staff to support the activities of the team. Health department and local government authorities are coming up with helping hands by providing accessories, refreshments and cleaning gloves for the volunteers during the cleaning activities.

Problem Encountered and Resources Required:

Raising the fund to support the activities by the volunteers requires a lot of effort. A portion of the fund allocated to the NSS unit and the fund collected PTA is the main source of money.

TITLE OF THE PRACTICE II: Knowledge Sharing by the Faculty Members

Goal

The goal is to create a platform where the knowledge of a staff could be shared with other staff members for mutual benefit.

The Context

In the institute the area of expertise of each and every staff is different. They attend various workshops and faculty development programs on their area. Even though financial assistance for attending programs is given through TEQIP II, it is practically difficult for everyone to attend all the courses. It is in this context a practice of sharing the knowledge acquired by the staff through such programs is introduced.

The Practice

The staff who attends a workshop or faculty development program takes a session in which the knowledge acquired is shared. The topic, venue and time of the session will be announced earlier and interested staff can attend it. The participants are encouraged to ask questions which will be usually followed by a discussion. This practice helps the participants to gain knowledge about a new topic in a short duration. The staff who takes the session also get benefitted as the presentation skills and the knowledge on the topic will increase when it is shared with his peers.

Evidence of success

The outcome of the practice is the increase in the knowledge level of the staff in the department. Staff are becoming happier to accept questions from the peers and ready to help each other. After hearing about the topic in the session, more staff will be willing to attend similar courses. For example, after the session on the Pedagogical Training provided at IIT Madras more staff got interested and attended the program.

Problem Encountered and Resources Required

When the topic is too specific to some research area, the number of participants attending the session will be less.

DEPARTMENT EVALUATIVE REPORTS

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Evaluative Report

1. **Name of department:** Computer Science and Engineering

2. **Year of establishment:** 2000

3. **Name of programme /Courses offered**

No		Engineering/Technology		Year of Start
1	UG	B.Tech	Computer Science and Engineering	2000

4. **Names of interdisciplinary courses and departments / units /subjects involved.**

No	Scheme	Subjects	Semester	Department involved
1	2016-KTU	Calculus	I or II	Department of Mathematics
2	2016-KTU	Engineering Physics	I or II	Department of Physics
3	2016-KTU	Engineering Chemistry	I or II	Department of Chemistry
4	2016-KTU	Engineering Mechanics	I or II	Department of Civil Engineering
5	2016-KTU	Engineering Graphics	I or II	Department of Mechanical Engineering
7	2016-KTU	Basics of Mechanical Engineering	I or II	Department of Mechanical Engineering
8	2016-KTU	Basics of Electrical Engineering	I or II	Department of EE Engineering
9	2016-KTU	Basics of Electronics Engineering	I or II	Department of EC Engineering
10	2016-KTU	Engineering Physics Laboratory	I or II	Department of Physics
11	2016-KTU	Engineering Chemistry Laboratory	I or II	Department of Chemistry
12	2016-KTU	Mechanical Engg Workshop	I or II	Department of Mechanical Engineering
13	2016-KTU	Differential Equation	I or II	Department of Mathematics
14	2016-KTU	Electrical Engineering Workshop	I or II	Department of EE Engineering
15	2016-KTU	Linear Algebra & Complex Analysis	III	Department of Mathematics

16	2016-KTU	Discrete Computational Structures	III	Department of Mathematics
17	2016-KTU	Switching Theory and Logic Design	III	Department of EC Engineering
18	2016-KTU	Electronics Devices & Circuits	III	Department of EC Engineering
19	2016-KTU	Business Economics	III	Department of Applied Science
20	2016-KTU	Electronic Circuits Lab	III	Department of EC Engineering
21	2016-KTU	Probability Distributions, Transforms and Numerical Methods	IV	Department of Mathematics
22	2016-KTU	Life Skills	IV	Department of Applied Science
23	2016-KTU	Digital Systems Lab	IV	Department of EC Engineering
24	2012-CUSAT	Engineering Mathematics-IV	V	Department of Mathematics
25	2012-CUSAT	Microprocessor Based System Design	V	Department of EC Engineering
26	2012-CUSAT	Microprocessor Laboratory	V	Department of EC Engineering
27	2012-CUSAT	Modern Control Systems	VI	Department of EC Engineering
28	2012-CUSAT	Industrial Organization and Management	VII	Department of Mechanical Engineering

*KTU-Kerala Technical University

5. Annual /Semester/ Choice based credit system (programme wise):

No	Engineering/Technology			System
1	UG	B.Tech	Computer Science and Engineering	Semester credit system

6. Participation of the department in the courses offered by other departments:

No	Branch	Semester	CourseId	Course Name
1	Civil Engineering	NIL	NIL	NIL
2	Electrical and Electronics Engineering	III	EE207	Computer Programming
			EE233	Programming Lab
3	Electronics and Communication Engineering	VIII	EC1803	Computer Network
4	Information Technology	VIII	IT1803	Computer Network

		VII	IT1702	Operational Research
			IT 1703	Internetworking
		IV	CS 202	Computer Organization and Architecture
			IT 204	Object Oriented techniques
			IT 232	Object Oriented Programming Lab
			IT 234	Algorithm Design Lab
			IT202	Algorithm Analysis and Design
		III	CS205	Data Structures
			CS231	Data Structures Lab
		I	BE101	Introduction to computing and problem solving
			CS110	Computer Science Workshop

7. Courses in Collaboration with other universities, industries, foreign institution etc.: Nil

8. Details of course/programme discontinued (if any): Nil

9. Number of teaching posts:

No	Teaching post	Sanctioned	Filled
1	Professors	1	NIL
2	Associate Professors	2	1
3	Assistant Professors	7	10

10. Faculty Profile with name, Qualification, designation, Specialization (D.Sc/D.Litt./Ph.D./M.Phil. Etc.,)

No	Name	Qualification	Designation	Specialization	Years of experience	Ph.D students guided last 4 years
1	Ms. Naveena A K	M.Tech	Associate Professor	Image Processing	15	
2	Ms. Sheena K	M E	Assistant Professor	Computer Science and Engineering	13	
3	Mr. Rafeekh A P	M.Tech	Assistant Professor	Computer & Information Science	12	

4	Mr. Rakesh R J	M.Tech	Assistant Professor	Computer Science and Engineering	6	
5	Mr. Anoop P. V.	ME	Assistant Professor	Computer Science Engineering	7	
6	Ms. Shabna Salam	M.Tech	Assistant Professor	Computer and Information Science	10	
7	Mr. Muhammad Sajeer N.	M E	Assistant Professor	Computer Science & Engineering	10	
8	Mr. Febin P Jacob	M.Tech	Assistant Professor	Computer Science and Engineering	6	
9	Ms. Athira Gopal	M.Tech	Assistant Professor (Adhoc)	Computer Science and Engineering	2	
10	Ms. Sisira S R	M.Tech	Assistant Professor (Adhoc)	Software Engineering	1	
11	Ms. Anusree K	M.Tech	Assistant Professor (Adhoc)	Computer Science and Engineering	3 Months	

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled by temporary faculty

Academic Year	No. of Guest Faculty	Percentage of classes engaged by temporary staff
2012-13	5	41.5%
2013-14	5	55%
2014-15	4	40%
2015-16	4	40%
2016-17	3	30%

13. Student-teacher ratio:

No	Academic Year	Sanctioned in-take	Student Strength					Faculty Strength	Student–Teacher Ratio
			I	II	III	IV	Total, Except I year		
1	2012-2013	60	60	69	65	60	194	12	16.16
2	2013-2014	60	54	68	69	65	202	9	22.44
3	2014-2015	60	51	61	68	69	198	10	19.8

4	2015-2016	60	51	51	61	68	163	10	16.3
5	2016-2017	60	52	55	51	61	167	10	16.7

14. Number of academic support staff (technical) and administrative staff:

Description	2012-13		2013-14		2014-15		2015-16		2016-17	
	S	F	S	F	S	F	S	F	S	F
Technical Support Staff	6	6	6	6	6	6	6	6	6	3

15. Qualification of teaching faculty with dsc/ D.Litt/ Ph.D/ mphil/ PG:

Qualification	Count
UG	Nil
PG	10
PhD	1 (Pursuing)

16. Number of faculty with ongoing projects from National/ International funding agencies and grants received: Nil
17. Department projects funded by DST-FIST, UGC, DBT, ICSSR etc. And total grants received: Nil

18. Research Centre/Facilities recognized by the University: Nil

19. Publications:

Number of publications by Faculty (2012-2016)

No	Publications	2012-13	2013-14	2014-15	2015-16	2016- 17	Total
1	Refereed Journals				3	1	4
2	International Conferences				1		1
3	National Conferences	1			1		2

Number of publications by students: Nil

20. Areas of consultancy and income generated: Nil

21. Faculty as members in
i) National Committees ii) International Committees iii) Editorial Boards

No	Name of Staff	Membership in Professional Bodies	
		National	International
1	Naveena A K	ISTE (Life Member)	
2	Sheena K	CSI (Life Member)	
3	Muhammad Sajeer	CSI (Life Member)	
4	Shabna Salam	CSI (Life Member)	
5	Rafeekh AP	CSI (Life Member)	

22. Student projects

a) Percentage of students who have done in-house project including inter departmental.

b) Percentage of students placed for projects in organization outside the institution.

Course	2012-13		2013-14		2014-15		2015-16		2016-17	
	I*	O*	I	O	I	O	I	O	I	O
B.Tech Computer Science and Engineering	NIL	100	NIL	100	NIL	100	NIL	100	NIL	

*I-In-house/Inter Departmental, O- Research laboratories/Industry/Other

23. Awards / Recognitions received by faculty and students

Awards/Recognitions Received		2011-12		2012-13		2013-14		2014-15		2015-16		Total	
		*A	R*	A	R	A	R	A	R	A	R	A	R
Students	Curricular					1							
	Co-Curricular												
Faculty										1			

*A-Award R-Recognition

24. List of eminent academicians and scientists/visitors to the department

Year	Name of the Academicians/Scientists
2014-15	Dr. Lakshmi Narasimhan - ACM distinguished speaker

2015-16	

25. Seminars/ Conferences/ Workshops organized & the source of funding

a) National b) International

Seminars / Conferences / Workshops	N/I*	Title	Date	Funding Agencies
3 Day Workshop	N	GNU Linux Systems	March 2013	TEQIP II
5 Day FDP	N	Cloud Computing	08th -12th December 2014	TEQIP II
3 Day Workshop	N	Moodle	February 2015	TEQIP II
3 Day Short Term Training Program	N	Assembly Programming-NASM	December 2015	TEQIP II
Conference	N	RETICS'16 (National Conference On Recent Trends In Computer Networks)	February 16,17 2016	TEQIP II
7 Day Faculty Development Program	N	How to develop, Deploy and Maintain Web Applications using PHP and MySQL	March 2016	TEQIP II
Conference	N	RECTICS'17 (National Conference On Recent Trends In Computer Networks)	March 21st,22nd 2017	TEQIP II
Colloquium	N	Research Opportunities in Computer Networks	March 4th 2017	TEQIP II

*N/I – National/ International

26. Student profile programme / course wise:

Programme (Admission)	Academic Year	Sanctioned Intake						Enrolled	
		SM*	TFW*	MGMT*	NRI*	LE*	Total	M*	F*
B.Tech Computer Science and Engineering	2012-13	30	3	21	9	6	69	22	47
	2013-14	30	3	21	9	6	69	26	33
	2014-15	30	3	21	9	6	69	19	38

	2015-16	30	3	21	9	6	69	24	32
	2016-17	30	3	21	9	6	69	27	29

(*SM – State Merit, TFW - Tution Fee Waiver, MGMT - Management, NRI - Non Resident Indian, LE – Lateral Entry, M - Male, F – Female)

Student Pass percentage

Programme	Academic period	Appeared Students	Passed Students	Pass %
B.Tech Computer Science and Engineering	2008-12	68	45	66.18
	2009-13	60	31	51.67
	2010-14	65	36	55.38
	2011-15	68	32	47.06
	2012-16	66	20	30.30

27. Diversity of Students

Name of the Course	Academic year	Percentage of Kerala Students	Percentage of Students from Other States	Percentage of Students from Abroad
B.Tech Computer Science and Engineering	2012-13	100	-	-
	2013-14	100	-	-
	2014-15	100	-	-
	2015-16	100	-	-
	2016-17	100	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services etc?

Competitive Examination	2011	2012	2013	2014	2015
GATE	3	8	5	6	4
CAT				1	

29. Student progression

Student Progression	2012-13 (%)	2013-14 (%)	2014-15 (%)	2015-16 (%)
UG to PG	11.66	9.23		
PG to Ph.D	NIL	NIL	NIL	NIL
Employed Campus Selection	6	27.6	23.52	36.36

30. Details of Infrastructural facilities

Library

No.	Descriptions	Quantity in Numbers	
1	Books for students circulation(Central Library)	Titles	4482
		Volume	19401
2	Books in the department library for reference	Titles	21
		Volume	24
3	Technical Journals (Central Library)	National	26
		International	6
		e-journals	7
4	Technical magazines subscribed(Central Library)	7	
5	News Papers(Central Library)	8	
6	Educational CD's(Central Library)	Available	
7	Power point Presentations(Central Library)	Not Available	
8	Illustrative charts/ Models etc.	Not Available	

Computer Facilities

No.	Items	Quantity in Numbers
1	Server class computer	1
2	Desktop computer	282
3	Laptops	15
4	Laser Printers	4
5	Photocopier cum network printer	2
6	Scanner	2

All the above systems are in LAN with internet facility. All the computers are UPS connected.

Licensed Software

1. Windows 2000 server UML
2. Windows 98 Software Design - ADOBE
3. Windows 7 MI Power
4. Redhat HFSS
5. Windows 2012 server Model Sim
6. Ubuntu Mathlab
7. Fedora Multi sim
8. Norton Antivirus Lab view
9. Ms Office 2000 EDA Tool
10. Visual studio professional 6.00 Orcad
11. StudioMX 2004 Autocad
12. Kaspersky internet security STAAD
13. Ms Office 2007 Primavera
14. Visual studio professional 2008

Class room Facility

No	Usage	Quantity (nos)	Capacity	Area (m^2)	Facilities
1	Class Room	2	60	69.01	Podium, Raised Platform, Black board, White board, Internet facility.
2	Class Room	1	60	69.01	Podium, Raised Platform, Black board, White board, Internet facility, Projector.
3	Class Room	1	60	68.75	Podium, Raised Platform, Black board, White board, Internet facility.
4	Seminar Hall	1	75	68.88	Projector, Air Conditioner, UPS, Internet Facility, Whiteboard

Laboratory Details

No	Name of Laboratory	Area (m^2)	Facilities
1	Project Lab	69.01	Air Conditioner, UPS, Internet facility, Computer(8), Dot Matrix Printer(1), Scanner(1), Internet facility, Whiteboard
2	Object Oriented Programming Lab	68.88	Air Conditioner, UPS, Internet facility, Computer(35), Printer(1), Internet facility, Whiteboard
3	Linux Lab	69.01	Air Conditioner, UPS, Internet facility, Computer(35), Printer(1), Internet facility, Whiteboard, Networking Unit
4	Network Lab	69.01	Air Conditioner, UPS, Internet facility, Computer(35), Internet facility, Whiteboard
5	Hardware Lab	69.01	Computer Hardware Components

31. Number of students receiving financial assistance from college, university, government or other agencies

Name of the Scholarship	2012-13	2013-14	2014-15	2015-16	2016-17	Total
Egrantz for SEBC and FC from the Governement of Kerala SC/ST/OEC	10	8	3	4	1	
MCM from Ministry of Minority Affairs, Central Government	6	6	5			

32. Details on student enrichment programmes (special lectures / workshops / seminar)

Name of the Academicians/ Scientists/ Institution/Industry	Purpose of Visit
Career Launcher	Pre-placement training programme - S4 CSE
Viju P Poonthottam	Expert Talk-Object oriented modeling and design – Rational Rose
Viju P Poonthottam	Expert Talk-Object oriented modeling and design – Applications of UML
Sabin Govind	Expert Talk – Operating System
Sabin Govind	Expert Talk – Security in Computing
Vineeth V V	Expert Talk - DSP
ICT Academy of Kerala	Life Skill training
Shyju P	Expert Talk - Computer Networks
Vineeth V.V	Expert Talk - Digital Signal Processing
AFLIT Company	Workshop - Android Workshop
Career Launcher	Pre-placement training programme - S2 CSE
Mr. Sreekanth Vanga, PDQ softech PVt Ltd	Workshop
Binesh K	Expert Talk
Quest Innovative Solutions Pvt. Ltd	Workshop
ICT Academy of Kerala	Technical Foundation Programme - A Bridge to Computer Science
ICT Academy of Kerala	Induction Programme - Bhavishya
Sabin Govind	Expert Talk
Shaiju P	Expert Talk - Algorithm Analysis and Design

Shajeesh U	Expert Talk - System programming
Vishnu	Expert Talk - Data Structures
Rashma TV	Expert Talk - Adv. Architecture & Parallel Processing
Viju P	Expert Talk - Software Engg
Jecy P	Expert Talk - Microprocessor Based System Design
Binesh K	Expert Talk - Computer Networks
ICT Academy	Soft Skill training for final year students.
Career Launch	Aptitude training for final year students.
Meet the CEOs	Workshop for pre final year students at UL Cyberpark Kozhikode
Bineesh K	Expert talk - Open GL
Bitsforge Technologies Pvt.Ltd	Workshop - Raspberry Pi

33. Teaching methods adopted to improve student learning

Aiming at the effectiveness of the teaching learning process, the department facilitates the use of various teaching tools such as

- Power point presentation
- Tutorial Sessions
- NPTEL
- Modern resources – available with websites of IIT, MIT etc.
- E- Journals and e-books
- Moodle

34. Participation in Institutional Social responsibility (ISR) and Extension activities

Students participated in the following social welfare activities and faculty members coordinated the events:

- National Service Scheme
- Cleaning activities
- Planting trees

.

35. SWOC analysis of the department and Future Plans

Strengths

- The department is enriched with experienced and dedicated faculty members.
- The department has adequate infrastructure with smart class room, highly equipped software and hardware laboratories.
- All faculty members have received pedagogical training from institutions like IIT and IIM.
- Remedial classes offered for academically weak students.

- Expert talks and workshops are conducted frequently for students.
- Faculty student ratio 1:15 is maintained.
- Facilities for competitive online exams.
- Faculty members have membership in various professional bodies like IEEE, CSI

Weaknesses

- Approval for PG courses are required.
- Less focus on research activities.
- No accredited programs.

Opportunities

- Opportunity to acquire higher qualification for faculty.
- Opportunity to collaborate with various institutions and industries to organize training classes and hands-on-training in the Computer Science and Engineering area.
- Newly coming Cyber park at Cheemeni.
- Availability of funds from various agencies.

Challenges

- Maintain excellent performance among the colleges under APJ Abdul Kalam Technological University.
- Mould the students to cope with latest trends in IT industry

Future Plans

- Increased number of faculty with phd.
- Better recognition of institute at the national level through academic performance, better placement, socially committed projects, conducting national symposium etc.
- Starting PG programmes.
- Achieve and sustain accreditation at the highest level.
- Enhancing library facilities and establishing digital library.
- Promote activities of professional bodies through obtaining professional body membership for the department.
- Establish effective networking with alumni.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Evaluative Report

1. **Name of the Department:** Electronics and Communication Engineering

2. **Year of Establishment:** 2000

3. **Names of Programmes/ Courses offered:**

No.	Engineering Technology			Year of starting
1	UG	B. Tech	Electronics and Communication	2000

4. **Names of Interdisciplinary courses and the departments/ units involved**

4.1. Syllabus with Cochin University of Science and Technology

No	Subjects	Semester/ Programme	Department Involved
1	Engineering Mathematics - I	I & II / B Tech	Mathematics
2	Engineering Physics	I & II / B Tech	Physics
3	Engineering Chemistry	I & II / B Tech	Chemistry
4	Engineering Graphics	I & II / B Tech	Mechanical Engineering
5	Engineering Mechanics	I & II / B Tech	Civil Engineering
6	Basic Civil Engineering	I & II / B Tech	Civil Engineering
7	Basic Mechanical Engineering	I & II / B Tech	Mechanical Engineering
9	Engineering Workshops	I & II /B Tech	Mechanical Engineering
10	Engineering Mathematics II	III / B Tech	Mathematics
11	Engineering Mathematics III - Probability & Random Processes	IV / B Tech	Mathematics
12	Humanities	IV / B Tech	Mechanical Engineering
13	Engineering Mathematics IV - Complex Analysis & Linear Algebra	V / B Tech	Mathematics
14	Engineering Management for Electronics Engineers	V / B Tech	Mechanical Engineering
15	Industrial Organization and Management	VII / B Tech	Mechanical Engineering

16	Computer Communication and Networking	VIII / B Tech	Information Technology

4.2. Syllabus with Kerala Technological University

No	Subjects	Semester	Department Involved
1	Calculus	I	Mathematics
2	Engineering Physics	I	Physics
3	Engineering Mechanics	I	Civil Engineering
4	Introduction to Sustainable Engineering	I	Civil Engineering
5	Basics of Electrical Engineering	I	Electrical and Electronics Engineering
6	Engineering Physics Lab	I	Physics
7	Electrical Engineering Workshop	I	Electrical and Electronics Engineering
8	Differential Equations	II	Mathematics
9	Engineering Chemistry	II	Chemistry
10	Engineering Graphics	II	Mechanical Engineering
11	Basics of Mechanical Engineering	II	Mechanical Engineering
12	Basics of Civil Engineering	II	Civil Engineering
13	Design and Engineering	II	Mechanical Engineering
14	Engineering Chemistry Lab	II	Chemistry
15	Mechanical Engineering Workshop	II	Mechanical Engineering
16	Civil Engineering Workshop	II	Civil Engineering
17	Engineering Graphics (AutoCAD Lab)	II	Mechanical Engineering
18	Design and Engineering	II	Mechanical Engineering
19	Linear Algebra and Complex Analysis	III	Mathematics
20	Life Skills	III	Applied Science
21	Probability, Random Processes and Numerica Methods	IV	Mathematics
22	Business Economics	IV	Applied Science

5. Annual/ Semester/ Choice Based Credit System (Programme Wise)

No	Engineering/ Technology			Annual/ semester / choice based credit system
1	UG	B. Tech	Electronics and Communication	Semester Based Credit System

6. Participation of the Department in the Courses Offered by other Departments

6.1. Syllabus with Cochin University of Science and Technology

Subjects	Semester/ Scheme	Department
Basic Electronics Engineering	I & II / 2012	Civil, Computer Science, Electrical,IT,
Electronic Circuits / Electronics Devices and Circuits	III / 2012	Computer Science and Engineering
Electronic Circuits Laboratory	III /2012	Computer Science and Engineering
Data Communication	IV/2012	Computer Science and Engineering
Logic Design Lab	IV/2012	Computer Science and Engineering
Microprocessor based System Design	V/2012	Computer Science and Engineering
Microprocessor Laboratory	V/2012	Computer Science and Engineering
Modern Communication Engineering	VI/2012	Electrical and Electronics

6.2. Syllabus with KTU

No	Subjects	Semester/ Scheme	Department
1	Basics of Electronics Engineering	I/ 2015	Electrical and Electronics Engineering
2	Electronics Engineering Workshop	I/ 2015	Electrical and Electronics Engineering
3	Basics of Electronics Engineering	II/ 2015	Civil Engineering, Computer Science and Engineering, Information Technology
4	Electronics Engineering Workshop	II/ 2015	Civil Engineering, Computer Science and Engineering, Information Technology

5	Electronic Devices and Circuits	III/2015	Computer Science and Engineering
6	Switching Theory and Logic Design	III/2015	Computer Science and Engineering
7	Digital System Design	III/2015	Information Technology
8	Electronic Devices and Circuits Laboratory	III/2015	Computer Science and Engineering
9	Digital Circuits Laboratory	III/2015	Information Technology
10	Digital Systems Laboratory	IV/2015	Computer Science and Engineering

7. Courses in Collaboration with other Universities, Industries, Foreign Institutions, etc.

Nil

8. Details of Courses/Programmes discontinued (if any) with Reasons

Nil

9. Number of Teaching Posts

No	Teaching post	Sanctioned	Filled
1	Professors	1	0
2	Associate Professors	2	1
3	Assistant Professors	7	7

10. Faculty Profile with Name, Qualification, Designation, Specialization, (D.Sc./D.Litt./Ph.D./M.Phil.Etc.,)

No	Name	Qualification	Designation	Specialization	Years of Experience	Students guided for the last 4 years
1	Mahesh V V	M.Tech (Doing Phd)	Associate Professor	Opto Electronics and LASER Technology	17	NIL
2	Suresh Kumar A V	M.Tech	Assistant Professor	Opto Electronics and LASER Technology	13	NIL

3	Jyothi K	M.Tech	Assistant Professor	Signal Processing and Embedded System	10	NIL
4	Ratheesh T	B.Tech (Doing M.Tech)	Assistant Professor	Electronics and Communication Engineering	7	NIL
5	Deepthi P M	M.Tech	Assistant Professor	Optoelectronics and Optical Communication	10	NIL
6	Prasanth P S	M.Tech	Assistant Professor	Signal Processing	2	NIL
7	Nevin Thomas	M.Tech	Assistant Professor	Digital Electronics	3.5	NIL
8	Ashna V R	M.E	Assistant Professor	VLSI DESIGN	2.5	NIL
9	Ribina B	M.Tech	Assistant Professor	Signal Processing	.75	NIL
10	Sibil Francis	M.Tech	Assistant Professor	Communication Systems	2.5	NIL
11	Vani R	M.Tech	Assistant Professor	Digital Electronics	.5	NIL
12	Greeshma P V	M.E	Assistant Professor	Communication Systems	1.5	NIL
13	Raji M P	M.E	Assistant Professor	Communication Systems	2	NIL

11. List of Senior Visiting Faculty

Nil

12. Percentage of Lectures Delivered and Practical Classes Handled (Programme Wise) by Temporary Faculty

Year	Percentage of classes handled by temporary faculty
2014-2015	55.8%
2015-2016	64.06%
2016-2017	60%

13. Student-Teacher Ratio (Programme Wise)

Year	Student – Teacher Ratio	
	UG	PG
2011-2012	22.9	-
2012-2013	20.25	-
2013-2014	18.38	-
2014-2015	15.06	-
2015-2016	15.23	-

14. Number of Academic Support Staff (Technical) and Administrative Staff; Sanctioned and Filled

Supporting Staff	Sanctioned	Filled
Academic support staff	5	4
Administrative staff	0	0

15. Qualifications of Teaching Faculty with Dsc/ D.Litt/ Ph.D/ Mphil/ PG.

Qualification	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
UG	9	9	3	1	1
PG	3	3	11	13	13
Ph.D	0	0	0	0	0

16. Number of Faculty with Ongoing Projects From National or 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

Nil

19. Publications: Last Four Years

19.1. Number of publications by faculty (2013-2016)

No	Publications	2013-14	2014-15	2015-16	Total
1	Refereed Journals	0	2	0	2

2	International Conferences	2	5	1	8
3	National Conferences	0	1	0	1
4	Books	0	0	0	0

19.2. Number of publications by students (2013-2016)

No	Publications	2013-14	2014-15	2015-16	Total
1	Refereed Journals	0	0	0	0
2	International Conferences	0	0	0	0
3	National Conferences	0	0	3	3
4	Books	0	0	0	0

20. Areas of Consultancy and Income Generated

Nil

21. Faculty as Members In, National Committees B) International Committees C) Editorial Boards

Nil

22. Student Project

a. Percentage of Students who have done In-House Projects Including Inter-Departmental Programme

b. Percentage of Students Placed for Projects in Organizations Outside the Institution I.E., in Research Laboratories/ Industry/ other agencies

Year	In- House (%)	Outside Institution (%)
2008-12	100	0
2009-13	100	0
2010-14	100	0
2011-15	100	0

23. Awards/ Recognitions Received by Faculty and Students

Nil

24. List of Eminent Academicians and Scientists/ Visitors to the Department

24.1. International

Nil

24.2. National

No	Date	Name of the Event	Name and Designation of Resource Persons
1	08/03/2016 to 09/03/2016	National Conference on Recent Advances in Communication and Electronics (RACE 16)	Dr. Prasad Krishna, Professor, Department of Mechanical Engineering, NIT, Suratkal.
			Dr. K.A. Navas, Head of Department, Department of Electronics & Communication Engineering, GEC, Kannur
			Dr. Sudeep Kumar, SDE, BSNL
2	27/02/2017	Expert talk on Fundamentals of Information Theory and Coding	Dr. A. Rajesh, Associate Professor, Dept. of Electrical and Electronics Engineering, IIT, Guwahati
3	08/03/2017 to 09/03/2017	National Conference on Recent Advances in Communication and Electronics (RACE 17)	Dr. G. Gopakumar, Vice Chancellor of Central University of Kerala, Kasargod
			Dr. K.A. Navas, Head of Department, Department of Electronics & Communication Engineering, GEC, Kannur
			Dr. R. Bijukumar, Head of Department, Department of Electronics & Communication Engineering, CE, Muttathara
			Dr. Linesh J, Asst. Professor, Department of Electronics & Communication Engineering, Govt. College, Mananthavady
4	20/03/17	Research Colloquium on Signal Processing- RCSP'17	Dr. A. Rajesh, Associate Professor, Dept. of Electrical and Electronics Engineering, IIT, Guwahati
			Dr. Jeny Rajan, Assistant Professor, Dept. of Computer Science Engineering, , NIT, Surathkal
			Dr. Sudhish N George, Dept. of Electronics and Communication Engineering, Assistant Professor, NIT, Calicut

			Dr. M V Rajesh, Associate Professor, Dept. of Electronics and Communication Engineering, College of Engineering, Poonjar, Under IHRD, Govt. of Kerala
			Dr. Renu Jose, Assistant Professor, Dept. of Electronics and Communication Engineering RIT, Kottayam

25. Seminars/ Conferences/ Workshops Organized & The Source of Funding

25.1. International

Nil

25.2. National

No	Date	Name of the Event	Co-ordinators	Funding
1	21/03/17 to 24/03/17	Workshop on Signal Processing Systems	Mahesh V.V., Jyothi K, Nevin Thomas	TEQIP Phase II
2	20/03/17	Research Colloquium on Signal Processing- RCSP'17	Mahesh V.V., Suresh Kumar A.V., Prasanth P.S.	TEQIP Phase II
3	08/03/2017 to 09/03/2017	National Conference on Recent Advances in Communication and Electronics (RACE 17)	Mahesh V V, Jyothi K, Deepthi P M	TEQIP Phase II
4	04/04/2016 to 06/04/2016	STTP on Familiarization of EDA Tools for circuit Simulation and PCB Design	Reshma C. Instructor Gr II	TEQIP Phase II
5	08/03/2016 to 09/03/2016	National Conference on Recent Advances in Communication and Electronics (RACE 16)	Deepthi P M, Arun P L, Shihabudheen H	TEQIP Phase II
6	11/01/2016 to 16/01/2016	Workshop on Signal and Image Processing using MATLAB	Shihabudheen H, Nevin Thomas	TEQIP Phase II
7	03/08/2015 to 05/08/2015	Workshop on Hands on Training 8051	Deepthi P.M	TEQIP Phase II
8	27/07/2015 to 01/08/2015	Workshop on Embedded system Design and development	Shihabudheen H	TEQIP Phase II
9	21/07/2015 to 25/07/2015	Hands on training PIC microcontroller, ARM processor and Raspberry Pi	Deepthi P.M	TEQIP Phase II
10	10/11/2014 to 14/11/2014	FDP on digital signal processing tools for Engineering applications	Joby James	TEQIP Phase II

26. Student Profile Programme/Coursewise

Name of the Course/programme	Applications received	Lowest State Merit Rank Admitted	Selected	Enrolled		Pass percentage
				*M	*F	
B. Tech (2008-12)	Admission from common rank list published by the Entrance Commissioner Government of Kerala	51145	69	35	34	69.44%
B. Tech (2009-13)		54049	67	24	43	54.92%
B. Tech (2010-14)		59078	67	24	43	48.57%
B. Tech (2011-15)		53993	61	25	36	44.11%
B. Tech (2012-16)		60095	50	19	31	50.76%
B. Tech (2013-17)		55626	54	23	31	
B. Tech (2014-18)		55934	59	26	33	
B. Tech (2015-19)		40746	47	18	29	

27. Diversity of Students

Year	Percentage of students from the same state	Percentage of students from other States	Percentage of students from abroad
2008-12	100	0	0
2009-13	100	0	0
2010-14	100	0	0
2011-15	100	0	0
2012-16	100	0	0
2013-17	100	0	0
2014-18	100	0	0
2015-19	100	0	0

28. How many students have cleared National and State Competitive Examinations such as NET,SLET,GATE,Civil Services, Defense Services,etc.?

UG Batch	GATE	NET	GMAT	CAT	GRE	Civil Services	Defence
2010-14	4						
2011-15	3						
2012-16	3						
2013-17							

29. Student Progression

Year	UG to PG	PG to Ph.D	Ph.D to Post Doctoral	Campus selection	Other than campus recruitment
2010-14	8	-	-		

2011-15	4	-	-	13	
2012-16	2	-	-	13	
2013-17		-	-	4	

30. Details of Infrastructural Facilities

30.1. Library

No	Descriptions	Quantity in Numbers	
1	Books for students circulation (Central Library)	Titles	5983
		Volume	19401
2	Books in the department library for reference	Titles	100
		Volume	100
3	Technical Journals (Central Library)	Printed	32
		e-journals	7
4	Technical Journals (Department Library) Printed	0	
5	Technical magazines subscribed(Central Library)	National Magazines -7	
6	NPTEL videos (Central Library)	Available	

30.2. Internet facilities for Staff & Students

No.	Description	Quantity in Numbers
1	Computers (with internet facilities)	30
2	Bandwidth	100 Mbps (1:1) leased line fibre-optic connectivity from BSNL and a 10 Mbps Broad Band connection from BSNL
3	Computers with network facilities	30
4	Licensed software	10

30.3. Class room with ICT facility

No.	Description	Quantity in Numbers
1	Class rooms with white board/projector/internet/ICT facilities	4

30.4. Laboratories

No	Name of the Laboratory	Number of students per batch	Area (sqm)
1	Basic Electronics Laboratory	35	68.47
2	Digital Electronics Laboratory	35	68.75
3	Microprocessor Laboratory	35	68.75
4	Electronic Circuits Laboratory	35	68.47
5	DSP Laboratory	35	68.75
6	Communication Laboratory	35	68.47
7	Embedded Systems Laboratory	35	68.75
8	Project Lab	35	68.75

31. Number of students receiving Financial Assistance from College, University, Government or Other Agencies

No	Scholarship	2012-13	2013-14	2014-15	2015-16	Total
1	MCM	6	5	4		15
2	CSS					
3	E-grantz-FC		2		3	5
4	E-grantz-SEBC	9	9	4		22
5	E-grantz-SC	3	2			5
6	E-grantz-ST					
7	E-grantz-OEC		3	5	9	17

32. Details on Student Enrichment Programmes (Special Lectures/ Workshops/ Seminar) with External Experts

Department associations and the student chapters of different professional societies like IEEE function in the institution. They are providing access to the latest technical information and research, global networking and career opportunities. It conducts conferences and seminars of technical interest, technical workshops, technical tours, meetings, quiz on a regular basis. They bring about effective linkage between institution, industry and society.

33. Teaching Methods Adopted to Improve Student Learning

- Department is provided with multimedia projectors & screen and electronic podium for conducting presentation in addition to the facilities like black/green board, white board.
- Wi-Fi is available in every class rooms for internet connectivity.
- Working models of electronic equipments are available in different labs and workshop.
- The department facilitates teaching with ICT aid, NPTEL videos to improve students learning.
- Seminars and workshops by experts from industries are arranged and students get an opportunity to interact with them.
- Full fledged Project Lab with advanced softwares and hardwares.

34. Participation in Institutional Social Responsibility (ISR) and Extension Activities

The National Service Scheme (NSS) helps the youth to build their character, maintain discipline, create a sense of dignity of labor and instill their social consciousness.

35. SWOC Analysis of the Department and Future Plans

Strengths

- Highly creative, experienced and dedicated faculty members.
- One faculty member is pursuing Ph.D
- Most of the faculties are members of professional bodies like IEEE, ISTE etc.
- Motivation and support from management for doing higher studies and enhancing knowledge.
- Library with sufficient books and access to various online journals from IEEE,ELSEVIERetc.
- Facility for modern pedagogy and advanced learning support.
- High faculty retention.

Weaknesses

- Number of Ph. D holders in the department must increase
- Being an affiliated college to the University of CUSAT academic flexibility to introduce new courses is limited.
- Funded research works have yet to be accomplished.
- Number of MoUs for collaborative research is few.

Opportunities

- Potential alumni network in different areas like academics, R& D, Civil Services etc., to be explored for bringing funded research work and for motivating ongoing students.
- Many nearby upcoming engineering colleges in self-financing sector where ECE is being offered, the department shall act as a nodal centre to share expertise and experience for faculty and student training.

Challenges

- Improving the communication skills of students as majority of them are from rural background.
- Instilling self confidence to make the students suitable for jobs.
- Ten to 15% students do not clear the programme in first attempt. Many reasons shall be attributed to it including the lack of proper foundation in basic courses, inability to communicate in written language etc.

Future Plans

- Department to be established as a research centre.
- To start PG programmes.
- To establish more research labs.
- All faculty members to be Ph.D holders within a period of 5 years.
- Fifty percentage of faculty to be research guides within a period of 7 years.
- To bring funded research
- Pass percentage of UG to be increased to above 90%
- Increase in MoU with Industries.
-

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Evaluative Report

1. **Name of Department**: Electrical and Electronics Engineering

2. **Year of Establishment**: 2004

3. **Name of programme /Courses offered:**

No	Engineering/Technology			Year of Starting
1	UG	B.Tech	Electrical and Electronics Engineering	2004

4. **Names of Interdisciplinary courses and the departments/units involved**

UG: Electrical and Electronics Engineering (2006 Scheme)

No	Course	Semester	Department
1	Engineering Mathematics I	I&II	Applied Science and Humanities
2	Engineering Physics	I&II	Applied Science and Humanities
3	Engineering Chemistry	I&II	Applied Science and Humanities
4	Engineering Mechanics	I&II	Civil Engineering
5	Basic Civil and Mechanical Engineering	I&II	Civil Engineering Mechanical Engineering
6	Basic Electrical and Electronics Engineering	I&II	Electronics and Communication Engineering
7	Computer Programming	I&II	Computer Science & Engineering
8	Technical Communication and Social Sciences	I&II	Applied Science and Humanities
9	Computer Programming Lab	I&II	Computer Science & Engineering
10	Engineering Graphics	I&II	Mechanical Engineering
11	Electrical and Mechanical Workshops	I&II	Mechanical Engineering
12	Engineering Mathematics II	III	Mathematics
13	Strength of materials	III	Mechanical Engineering
14	Fluid Mechanics and Heat Engines	III	Mechanical Engineering

15	Engineering Mathematics III	IV	Mathematics
16	Analog Communication	IV	Electronics and Communication Engineering
17	Engineering Mathematics IV	V	Mathematics
18	Modern Communication Engineering	VI	Electronics and Communication Engineering
19	Industrial Organization and Management	VI	Mechanical Engineering

UG: Electrical and Electronics Engineering (2012 Scheme)

No	Course	Semester	Department
1	Engineering Mathematics I	I&II	Applied Science and Humanities
2	Engineering Physics	I&II	Applied Science and Humanities
3	Engineering Chemistry	I&II	Applied Science and Humanities
4	Engineering Mechanics	I&II	Civil Engineering
5	Basic Civil and Mechanical Engineering	I&II	Civil Engineering & Mechanical Engineering
6	Engineering Graphics	1&II	Mechanical Engineering
7	Basic Electrical and Electronics Engineering	I&II	Electronics and Communication Engineering
8	Computer Programming	I&II	Computer Science & Engineering
9	Environmental Studies and Technical Communication	I&II	Civil Engineering, Applied Science and Humanities
10	Electrical and Mechanical Workshop	1&II	Mechanical Engineering
11	Computer Programming Laboratory	I&II	Computer Science & Engineering
12	Language Laboratory	I&II	Applied Science and Humanities
13	Engineering Mathematics II	III	Applied Science and Humanities
14	Fluid Mechanics & Heat Engines	III	Mechanical Engineering
15	Engineering Mathematics III	IV	Applied Science and Humanities
16	Analog Communication	IV	Electronics and Communication Engineering

17	Engineering Mathematics IV	V	Applied Science and Humanities
18	Modern Communication Engineering	VI	Electronics and Communication Engineering
19	Industrial Organization and Management	VII	Mechanical Engineering

UG: Electrical and Electronics Engineering (KTU)

No:	Course	Semester	Department
1	Calculus	I	Applied Science and Humanities
2	Engineering Physics	I	Applied Science and Humanities
3	Engineering Chemistry	I	Applied Science and Humanities
4	Engineering Chemistry lab	I	Applied Science and Humanities
5	Basics of Mechanical Engineering	I	Mechanical Engineering
6	Mechanical Engineering Workshop	I	Mechanical Engineering
7	Engineering Mechanics	I	Civil Engineering
8	Differential Equations	II	Applied Science and Humanities
9	Engineering Physics Laboratory	II	Applied Science and Humanities
10	Engineering Physics	II	Applied Science and Humanities
11	Basic of Electronics Engineering	II	Electronics and Communication Engineering.
12	Electronics Engineering Workshop	II	Electronics and Communication Engineering.
13	Civil Engineering Workshop	II	Civil Engineering
14	Basic Civil Engineering	II	Civil Engineering
15	Engineering Graphics	II	Mechanical Engineering
16	Sustainable Engineering	I	Civil Engineering
17	Design Engineering	II	Mechanical Engineering
18	Humanities	III	Applied Science and Humanities
19	Life Skill	IV	Applied Science and Humanities
20	Computer Programming	III	Computer Science & Engineering
21	Computer Programming Laboratory	III	Computer Science & Engineering

5. Annual/semester/choice based credit system (programme wise)

No	Engineering/Technology		Annual/Semester Credit System
1	B.Tech	Electrical & Electronics	Semester based Credit System

6. Participation of the department in the courses offered by other departments

Cochin University of Science and Technology -2006 scheme

No	Subjects	Semester/Course	Departments
1	Basic Electrical and Electronics Engineering	I&II/B.Tech	Civil, Electronics & Communication, Computer Science Engineering, Information Technology
2	Electrical and Mechanical Workshop	I&II/B.Tech	Civil, Electronics & Communication, Computer Science Engineering, Information Technology
3	Electrical Technology	IV	Electronics & Communication
4	Electrical Machines Laboratory	IV	Electronics & Communication
5	Industrial and Power Electronics	V	Electronics & Communication
6	Digital Signal Processing	VI	Computer Science and Engineering
7	Modern Control Systems	VI	Computer Science and Engineering

Cochin University of Science and Technology -2012 scheme

No	Subjects	Sem.	Departments
1	Basic Electrical Engineering	I&II/B.Tech	Civil, Electronics & Communication, Computer Science Engineering, Information Technology
2	Electrical and Mechanical Workshop	I&II/B.Tech	Civil, Electronics & Communication, Computer Science Engineering, Information Technology
2	Digital Signal Processing	VI	Computer Science and Engineering
3	Modern Control Systems	VI	Computer Science and Engineering

Kerala Technological University -2015 Scheme

No	Subjects	Semester/ Course	Departments
1	Basics of Electrical Engineering	S1 /B.Tech	Electronics and Communication Engineering
2	Electrical Engineering Workshop	S1 /B.Tech	Electronics and Communication Engineering
3	Basics of Electrical Engineering	S2/B.Tech	Civil Engineering, Computer Science Engineering, IT
4	Electrical Engineering Workshop	S2/B.Tech	Civil Engineering, Computer Science Engineering, IT

7. Courses in collaboration with other universities, industries, foreign institutions, etc:

Nil

8. Details of courses /programmes discontinued (if any) with reasons:

Nil

9. Number of teaching posts (Sanctioned, Filled)

No	Teaching post	Sanctioned	Filled
1	Professors	1	0
2	Associate Professors	2	1
3	Assistant Professors	9	10

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil. etc.,)

No	Name	Qualification	Designation	Specialization	Years of Experience
1	Dr. Vinod Pottakulath	Ph.D	Associate Professor	Power System Dynamics and Stability	18
2	Gireesh Kumar A.	M.Tech	Assistant Professor	Power system	10
3	Sujith D. K.	M.Tech	Assistant Professor	Applied Electronics	10

4	Binesh Mohan P.*(on QIP deputation)*	B.Tech	Assistant Professor	Electrical Machines	9
5	Fousiya K.	M.Tech	Assistant Professor	Power Electronics and Drives	10
6	Sreekanth P.	M.Tech	Assistant Professor		8
7	Praseetha K.	M.Tech	Assistant Professor	Power System	8
8	Arun M. S.	M.Tech	Assistant Professor	Electrical Machines	8
9	Sudhin Govind.	M.Tech	Assistant Professor *(Adhoc)*	Power Electronics and Drives	3
10	Swetha M. K.	M.Tech	Assistant Professor *(Adhoc)*	Power Electronics	2
11	Kamaljith K.E.	M.Tech	Assistant Professor *(Adhoc)*	High Voltage Engineering	1
12	Sandra C.S.	M.Tech	Assistant Professor *(Adhoc)*	Energy Systems	1
13	Sheeba C	M.Tech	Assistant Professor *(Adhoc)*	Power electronics	6

11. List of senior visiting faculty:

Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

45%

13. Student-Teacher Ratio (programme wise)

No	Academic Year	Student Strength				Faculty Strength	Student Teacher Ratio
		II Year	III Year	IV Year	Total		
1	2011-12	72	64	72	208	10	20.8
2	2012-13	69	72	64	205	10	20.5
3	2013-14	57	68	72	183	10	18.3
4	2014-15	50	58	68	176	11	16
5	2015-16	53	50	58	161	11	14.63

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled. Number of academic support staff (technical) :

Description	2010-11		2011-12		2012-13		2013-14		2014-15		2015-16	
	S	F	S	F	S	F	S	F	S	F	S	F
Technical staff	4	4	4	4	4	4	4	4	4	4	4	5

S- Sanctioned; F- Filled

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

Qualification	2011-12	2012-13	2013-14	2014-15	2015-16
Ph. D	0	0	0	0	1
M.Tech	6	7	7	8	10
B. Tech	4	3	3	2	1

16. Number of faculty with on going 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:

Nil

19. Publications: Last Four years (Details given in Annexure)

Number of publications by Faculty (2011- 2015)

No	Publications	2012-13	2013-14	2014-15	2015-2016	Total
1	Refereed Journals	-		-	4	
2	International Conferences			-	6	
3	National Conferences				-	
4	Books				-	

Number of publications by Students (2011- 2015)

No	Publications	2012-13	2013-14	2014-15	2015-2016	Total
1	Refereed Journals	-	-	-	-	
2	International Conferences				5	5

3	National Conferences					

20. Areas of consultancy and income generated:

Nil

21. Faculty as members in a) National committees b) International Committees c) Editorial boards (Details given in Annexure)

- Many faculty are members in various professional organisations such as ISTE, IEEE etc.
- Dr.Vinod Pottakulath is the V-SAC, IEEE Malabar sub section

22. Student projects

a) Percentage of students who have done in-house projects including interdepartmental/ programme

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories /Industry/other agencies

No	Year	Total Projects	In-house Project	Project in Industry
1	2015-16	12	12	0
2	2014-15	13	13	0
3	2013-14	15	0	15
4	2012-13	15	0	15

23. Awards / Recognitions received by faculty and students

Students

Name of Student	Achievement	Year
	Nil	

Faculty

Name of Faculty	Achievement/ awards	Year
	Nil	

24. List of eminent academicians and Scientists / visitors

Company name	Name of Expert	Designation	Date of Visit
College of engineering Trivandrum	Dr. R M Shereef	Associate Professor	15-03-16 to 20-03-16

RIT Kottayam	Dr. Dinesh gopinath	Associate Professor	
GCE Kannur	Dr. Jayaprakash P	Associate Professor	
NIT Calicut	Dr. Jayanand G	Associate Professor	
GEC Thrissur	Dr. Jaison Mathew	Associate Professor	
GEC Thrissur	Dr. M Nandakumar	Professor	
BSNL	Dr. N Albert Singh	Sud Divisional Engineer	
CDAC	Mr. Subhash Joshi	PEG CDAC	
MES CE Kuttipuram	Dr. Mohan Das	Dean	23-11-15 to 27-11-15
NIT Calicut	Dr Abraham T Mathew	Professor	
NIT Calicut	Dr. Danish P B	Associate Professor	
CUSAT	Dr. K C James	Professor	
IIST Trivandrum	Dr. Deepak T G	Associate Professor	
GEC Kannur	Dr. P Sooraj	Associate Professor	
GEC Kannur	Dr. P Sooraj	Associate Professor	07-04-16
LBS CE Kasargod	Dr. K A Navas	Principal	08-01-15 to 09-01-15
KSEB	Er. Biju M T	Assistant Executive Engineer	
Sreebhudha College of Engineering, Alapuzha	Prof. Sreekanth K P	Assistant Professor	
Athul Engineering Systems and Energy and consultancy	Er. Ashok K M P	Project Engineer	
MES CE Kuttipuram	Dr. Mohan Das	Dean	8-12-14 to 12-12-14
Muthoot Institute Technology and Science	Mr. Sunil Paul	Assistant Prof	
IIST Trivandrum	Dr. Rajesh joseph Abraham	Assistant Prof	

GEC Kozhikode	Dr. Sreekumar C	Associate Professor	
NASC Kanhangad	Mr. Mithun A V	Assistant Prof	27-04-17 to 29-4-17
University College Trivandrum	Mr. Preenu C S	Assistant Prof	
NSS College of Engineering Palakkad	Dr. Viswanathan	Professor	6-1-15 to 7-1-15
NSS College of Engineering Palakkad	Dr. Sindhu R	Professor	

25. Seminars/Conferences/Workshops organized & the source of funding a) National, b) International

No	Programme	Funding Agency	Organizing Faculty	N/I*	Duration
1	STTP on "Power Quality"	TEQIP II	Praseetha K	N	15-03-16 to 21-03-16
2	FDP on Engineering Research : practices and tools	TEQIP II	Sreekanth P	N	23-11-15 to 27-11-15
3	Workshop on strategic planning for engineering colleges	TEQIP II	Binesh Mohan P	N	07-04-16
4	STTP on study and maintainace of electrical and electronics laboratory	TEQIP II	Binesh Mohan P	N	08-01-14 to 09-01-14
5	STTP on control Engineering	TEQIP II	Sreekanth P	N	08-12-14 to 12-12-14
6	FDP on LaTeX : A document preparation sytem	TEQIP II	Binesh Mohan P	N	27-04-15 to 29-04-15
7	STTP on power electronics – application and challenges	TEQIP II	Prof. A. Kunhiraman	N	18-03-13 to 23-03-13

8	Workshop on outcome based education and NBA accreditation	TEQIP II	Sreekanth P	N	06-01-15 to 07-01-15
9	International Conference on Smart Grid Technology	TEQIP II	Gireesh Kumar A	I	21-04-2016 to 23-04-2016
10	National Conference of Power and Energy Conversion Technology	TEQIP II	Sreekanth P	N	10-03-2017 to 11-03-2017
11	National Research Colloquium on Power Systems	TEQIP II	Arun M S	N	25-03-2017

N=National, I=International

26. Student profile programme/ course wise

B.Tech/Year	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
2014-15	Allotted from common rank list prepared by the Entrance commissioner, Government of Kerala	33	17	16	57.99
2013-14		33	19	14	56.86
2012-13		33	20	13	51.99
2011-12		33	18	15	65.09

*M=Male *F=Female

27. Diversity of Students

There are no students from out of state

28. How many students have cleared national and state competitive examinations such as NET, SET, GATE, Civil Services, Defense Services, etc.?

No	Examination	2011-12	2012-13	2013-14	2014-15	2015-16
1	GATE	2	3	4	6	7
2	CSIR-JRF-NET	NIL	NIL	NIL	NIL	NIL
3	Civil Service	NIL	NIL	NIL	NIL	NIL

29. Student regression

	2012-13	2013-14	2014-15	2015-16
UG to PG	10	10	11	9
PG to Ph.D.	NIL	NIL	NIL	NIL
Employed-Campus selection	5	4	4	4

30. Details of Infrastructural facilities

a) Library

No.	Descriptions	Quantity in Numbers	
1	Books for students circulation	Titles	1
		Volume	36
2	Department library for reference	Titles	2
		Volume	52

b) Internet facilities for Staff & Students

No	Description	Quantity in Nos
1	Computers with internet facility	30
2	Bandwidth	100 Mbps
3	Network Facility for all Computers	Available

c) Class rooms with ICT Facility

No	Description	No of Rooms
1	Class room with white board, projectors, Internet Facility and ICT	3

f) Laboratories

Laboratory	Space (Sq. ft)	Number of students
Electrical & Electronics Workshop	337	30
Electrical Machines Laboratory I	337	30
Electrical Machines Laboratory II	337	30
Electrical & Electronics Laboratory	138.2	30
Measurements & Instrumentation Laboratory	138.2	30
Power Electronics Laboratory	138.2	30
Software Laboratory	138.2	30
Microprocessor Laboratory	138.2	30
Digital Electronics Lab	138.2	30

31. Number of students receiving financial assistance from college, university government or other agencies

Scholarship details	2012-13	2013-14	2014-15	2015-16	Total
MCM (Merit Cum Means)	3	2	NIL	NIL	5
Egrantz SEBC and FC	7	10	4	NIL	21
CSS (Central Sector Scholarship)	NIL	NIL	NIL	NIL	0
Egrantz SC	2	2	1	1	6
Egrantz OEC	1		7	3	11

32. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts

Academic Year	Activity	Conducted by	Main resource person/Guest
2013-2014	Inizio	Students Branch	1.Pratheeksha AK (CEO and Cofounder , AmidRay technologies). 2. RANJITH R NAIR 3. Mr. Sethu madhavanV S 4. Sunil paul
2014-2015	Java workshop	Students Branch	Nagendra and Azhar ali from EMPOWER GLOBAL
2014-2015	ROBOTICS	Students Branch	Mr. Prashob
2014-2015	Awarness about IEEE	Students Branch	Nithin Saxena , Tittu Varghese and Susmitha Babu.
2014-2015	Quiz competiton	Students Branch	
2015-2016	Debate on women	Students Branch	

	empowerment.		
2015-2016	Diaspora yatra	Students Branch	Mr.Praveen (pirate praveen).
2015-2016	Web designing	Students Branch	Mr. Nithin RS and Mr. Sethuraman from Quavondis.
2016-2017	Workshop on php	Students Branch	Mr. Nithin RS and Mr. Vivek.
2016-2017	industrial relation session on "IT industry after BTECH	Students Branch	Mr. Arunandh TA (oracle)
2016-2017	INIZIO 2.0	Students Branch	Ranjith R Nair (IEEE Kerala section MD coordinator)
2016-2017	MY IEEE	Students Branch	Sreenadh TC (Ex chair ,IEEE SB CETKR)
2016-2017	IEEE AND ITS WORTH	Students Branch	Shone Jose (student representative, 2010, malabar hub).

Electrical & Electronics Engineering Association Activity

Academic Year	Activity	Main resource person/Guest
2013-2014	Seminar On Renewable Energy	Dr. Jayaprakash (GEC Kannur)
2013-2014	Power Quiz	KSEB
2014-2015	Workshop on Machine Windings	Mr. Sunil Paul
2014-2015	Power Quiz	KSEB
2016-2017	Seminar On Power Quality	Dr. Jayaprakash (GEC Kannur)

2016-2017	Power Quiz	KSEB

Year	Name of the Academicians/ Scientists/ Institution/Industry	Purpose of Visit
2015	Worksop on Study and Maintenance of Electrical and Electronics Laboratory Equipments	Workshop
2015	Workshop on web design and development by EEE	Workshop
2016	Training program on Management and Leadership orientation for future engineer By EEE	Workshop
2016	Expert talk on power system protection by EEE	Expert Talk
2016	Expert tlak on Non-conventional and renewable energy sources by EEE	Expert Talk
2016	Expert talk on signals and systems by EEE	Expert Talk
2016	Expert talk on control systems by EEE	Expert Talk
2016	Expert talk on Power Electronics by EEE	Expert Talk
2016	expert talk on General Telemetry Systems by EEE	Expert Talk
2017	Workshop on Embedded systems and Robotics	Workshop
2017	Expert Talk on Recent Trends in Electrical Engineering	Expert Talk
2017	Placement training program on Softskill for EEE	Placement training program
2017	Workshop on Embedded systems and Robotics	Workshop
2017	Placement Training program on Aptitude and Acrrier Guidence-EEE	Placement Training program
2017	Workshop on Solarpanel designing-EEE	Workshop
2017	Training program on Basic engineering software	Workshop
2017	Placement training program on Aptitude and Acrrier Guidence-EEE 2nd year	Placement Training program
2017	Expert Talk on Application in AC Drivers-EEE	Expert Talk
2017	Workshop on PCB Design Fabrication & Arduino based system design-EEE	Workshop

33. Teaching methods adopted to improve student learning

- Use of multimedia in delivery of lectures
- Dividing the students into small groups and conducting tutorials for these groups. This enhances the critical thinking and the problem solving skills of the students
- Organizing expert lectures and discussions.
- Well-equipped Central Library and Department Library provide assistance for self-learning.
- Organizing study tours to help the students in supplementing theoretical knowledge with practical experience.
- Students can access NPTEL video lectures for better understanding of the concepts.
- TEQIP classes are conducted to enhance the learning process
- Electrical Engineering Association activities such as workshops, seminars and

group discussions are also conducted.

- Technical fests, Conferences etc., are conducted.
- Remedial classes are arranged for weak students after regular class hours.
- A two week industrial training is included in the programme to give the students industrial experience.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

The students of the department actively participate in the following social welfare activities

- National Service Scheme
- Blood Donation Camp
- Alumini Association
- Student Welfare Committee
- Anti Ragging Cell
- Availability of Counselling Facility

35. SWOC analysis of the department and Future plans

Strengths

- The programme is conducted in a much disciplined manner so as to contribute to the student community in quantity and quality.
- The curriculum is developed with a strong professional outlook.
- Teaching-learning processis well organized.
- Higher ranked students of the entrance examination opt for this programme because of its credibility and employability.
- Qualified faculty with specialization in all domains of Electrical Engineering.
- Adequate & qualified technical staff is available for supporting the students in the laboratories during office hours and beyond.
- Majority of the top ranks in the University examinations are bagged by students of the department.
- Good placement records are the evidences of the strength of the programme.
- Well placed alumni and good alumni interaction, helps the students in identifying their challenges and opportunities.
- Good extra & co-curricular activities on and off the campus help the students in developing their organizing skills and moulding their character.

Weaknesses

- Improvement in teacher student ratio is expected for better outcomes.
- More Faculty publication is expected in refereed journals.
- Research funding from AICTE, DST etc. is below the expected level.
- Need PG programmes.

Opportunities

- New PG and Ph.D programmes are to be initiated.
- Research activities / publications need to be enhanced.
- Need to acquire funding from AICTE, DST etc.
- Interactions with outside world/Industry need to be increased.
- Signing of MoU with Industries can improve the performance of the department.

Challenges

- Department to be set up as a research centre
- Improving written and oral communication skills of the students.
- Making the students employable for R & D organizations is a major challenge.
- Achieving a pass percentage between 90 and 95.

Future Plans

- To groom the students for entrepreneurship.
- Increase MoU with industry.
- To bring more funded research

DEPARTMENT OF INFORMATION TECHNOLOGY

Evaluative Report

1. **Name of department:** Information Technology

2. **Year of establishment:** 2000

3. **Name of programme /Courses offered:**

No	Engineering/Technology			Year of Start
1	UG	B.Tech	Information Technology	2000

4. **Names of interdisciplinary courses and departments / units /subjects involved**

No	Scheme	Subjects	Semester	Department involved
1	2016-KTU	Calculus	I or II	Department of Mathematics
2	2016-KTU	Engineering Physics	I or II	Department of Physics
3	2016-KTU	Engineering Chemistry	I or II	Department of Chemistry
4	2016-KTU	Engineering Mechanics	I or II	Department of Civil Engineering
5	2016-KTU	Engineering Graphics	I or II	Department of Mechanical Engineering
7	2016-KTU	Basics of Mechanical Engineering	I or II	Department of Mechanical Engineering
8	2016-KTU	Basics of Electrical Engineering	I or II	Department of EE Engineering
9	2016-KTU	Basics of Electronics Engineering	I or II	Department of EC Engineering
10	2016-KTU	Engineering Physics Laboratory	I or II	Department of Physics
11	2016-KTU	Engineering Chemistry Laboratory	I or II	Department of Chemistry
12	2016-KTU	Mechanical Engineering Workshop	I or II	Department of Mechanical Engineering
13	2016-KTU	Differential Equation	I or II	Department of Mathematics
14	2016-KTU	Electrical Engineering Workshop	I or II	Department of EE Engineering

15	2016-KTU	Linear Algebra & Complex Analysis	III	Department of Mathematics
16	2016-KTU	Discrete Computational Structures	III	Department of Mathematics
17	2016-KTU	Data Structures	III	Department of CS Engineering
18	2016-KTU	Data Communication	III	Department of CS Engineering
19	2016-KTU	Business Economics/ Life Skills	III	Department of Applied Science
20	2016-KTU	Data Structures Lab	III	Department of CS Engineering
21	2016-KTU	Probability Distributions, Transforms and Numerical Methods	IV	Department of Mathematics
22	2016-KTU	Computer Organization and Architecture	IV	Department of CS Engineering
23	2016-KTU	Algorithm Analysis and Design	IV	Department of CS Engineering
24	2016-KTU	Object Oriented Techniques	IV	Department of CS Engineering
25	2016-KTU	Life Skills/Business Economics	IV	Department of Applied Science
26	2016-KTU	Object Oriented Programming Lab	IV	Department of CS Engineering
27	2016-KTU	Algorithm Design Lab	IV	Department of CS Engineering
28	2012-CUSAT	Engineering Mathematics-II	III	Department of Mathematics
29	2012-CUSAT	Electrical Technology	III	Department of EE Engineering
30	2012-CUSAT	Discrete Computational Structures	III	Department of Mathematics
31	2012-CUSAT	Logic Design and Electronics Circuits	III	Department of EC Engineering
32	2012-CUSAT	Electronics Circuits Lab	III	Department of EC Engineering
33	2012-CUSAT	Engineering Mathematics-III	IV	Department of Mathematics
34	2012-CUSAT	Microprocessor Architecture and System Design	IV	Department of EC Engineering
35	2012-CUSAT	Engineering Mathematics-IV	V	Department of Mathematics
36	2012-CUSAT	Industrial Organization and Management	VII	Department of Mechanical Engineering

*KTU-APJ Abdul Kalam Technological University
*CUSAT-Cochin University of Science and Technology

5. Annual/ Semester/ Choice based credit system (programming wise):

No	Engineering/Technology			System
1	UG	B.Tech	Information Technology	Semester credit system

6. Participation of the department in the courses offered by other departments:

No	Branch	Semester	Course Id	Course Name
1	Civil Engineering	Nil	Nil	Nil
2	Electrical and Electronics Engineering	Nil	Nil	Nil
3	Electronics and Communication Engineering	VIII	EC1803	Computer Communication and Networking
4	Computer Science and Engineering	IV	CS208	Database Management System
		VI	CS16L2	Mini Project
			CS1602	Compiler Construction
			CS1606E1	Software Testing
		VIII	CS1801	Advanced Architecture and Parallel Processing

7. Courses in Collaboration with other universities, industries, foreign institution etc.:

Nil

8. Details of course/programme discontinued (if any):

Nil

9. Number of teaching posts:

No	Teaching post	Sanctioned	Filled
1	Professors	Nil	Nil
2	Associate Professors	2	Nil
3	Assistant Professors	6	7

10. Faculty Profile with name, Qualification, designation, specialization (D.Sc/D.Litt./Ph.D./M.Phil. etc.,)

No	Name	Qualification	Designation	Specialization	Years of experience	Ph.D students guided last 4 years
1	Santhosh S N	M.Tech	Assistant Professor [HOD]	Computer Science and Information Security	8	
2	Rani Oomman Panicker	M.Tech	Assistant Professor	Computer Science and Engineering	9	
3	Shamal P K *(Doing M.Tech)*	B.Tech	Assistant Professor	Doing MTECH in Computer Science and Engineering	9	
4	Reejamol K J *(Doing M.Tech)*	B.Tech	Assistant Professor	Doing M.Tech in Computer Networking and Security	9	
5	Chithra K	M.Tech	Assistant Professor	Computer Science and Engineering	6	
6	Thejasree M	M.Tech	Assistant Professor	Computer Science and Engineering	5 Months	
7	Manjusha C	M.Tech	Assistant Professor	Computer Science and Engineering	4 Months	

11. List of senior visiting faculty: Nil

12. Percentage of lectures deliver and practical classes handled by temporary faculty

Academic Year	No. of Guest Faculty	Percentage of classes engaged by temporary staff
2012-13	3	43%
2013-14	5	62%

2014-15	4	57%
2015-16	5	71%
2016-17	3	60%

13. Student-Teacher Ratio:

No	Academic Year	Sanctioned Intake	Student Strength					Faculty Strength	Student–Teacher Ratio
			I	II	III	IV	Total, Except I year		
1	2012-2013	36	21	29	22	16	67	7	9.57
2	2013-2014	36	17	21	29	22	72	8	9
3	2014-2015	36	_	19	21	29	69	8	8.62
4	2015-2016	36	11	_	19	21	40	9	4.44
5	2016-2017	36	13	10	_	17	27	7	3.85

14. Number of academic support staff (technical) and administrative staff:

Description	2011-12		2012-13		2013-14		2014-15		2015-16	
	S	F	S	F	S	F	S	F	S	F
Technical Support Staff	6	6	6	6	6	6	6	6	6	3

15. Qualification of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil/ PG:

Qualification	Current Status
UG	0
PG	5 (2 Pursuing)
PhD	Nil

16. Number of faculty with ongoing projects from National/ International funding agencies and grants received:

1

17. Department projects funded by DST-FIST, UGC, DBT, ICSSR etc. and total grants received:

No	Agency	Project	Faculty	Grant	Year
1	Kerala State Council for Science Technology Environment	Online parking management system using IoT (Student project)	Rani Oomman Panicker	Rs 7000	2017

18. Research Centre/Facilities recognized by the University: Nil

19. Publications:

(a) Number of publications by Faculty

No	Publications	2012-13	2013-14	2014-15	2015-16	2016-17	Total
1	Refereed Journals		1		2		3
2	International Conferences		2		1		3
3	National Conferences			1	3		4

(b) Number of publications by students: Nil

20. Areas of consultancy and income generated: Nil

21. Faculty as members in

i) National Committees ii) International Committees iii) Editorial Boards

No	Name of Staff	Membership in Professional Bodies	
		National	International
1.	Prof. Reeja Mol	Nil	IEEE Student Member

22. Student projects

a) Percentage of students who have done in-house project including inter departmental.

b) Percentage of students placed for projects in organization outside the institution

Course	2012-13		2013-14		2014-15		2015-16		2016-17	
	I	O	I	O	I	O	I	O	I	O
B.Tech Information Technology	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

*I-Inter Departmental, *O- Research laboratories/Industry/Other Agencies

23. Awards / Recognitions received by faculty and students

Awards/Recognitions Received		2012-13		2013-14		2014-15		2015-16		2016-17		Total	
		*A	R*	A	R	A	R	A	R	A	R	A	R
Student	Co-Curricular	-	-	-	-	-	-	-	-	-	-	-	-

*A-Award *R-Recognition

24. List of eminent academicians and scientists/visitors to the department

Year	Name of the Academicians/Scientists
2014-15	Dr. Lakshmi Narasimhan, ACM distinguished speaker

25. Seminars/ Conferences/ Workshops organized & the source of funding

a) National b) International

Seminars / Conferences / Workshops	N/I*	Title	Date	Funding Agencies
3 Day Workshop	N	GNU Linux Systems	March 2013	TEQIP II
5 Day Faculty Development Program	N	Cloud Computing	08th -12th December 2014	TEQIP II
3 Day Workshop	N	Moodle	February 2015	TEQIP II
3 Day Short Term Training Program	N	Assembly Programming- NASM	December 2015	TEQIP –II
Conference	N	RETICS'16	February 16,17 2016	TEQIP II
7 Day Faculty Development Program	N	How to develop, Deploy and Maintain Web Applications using PHP and MySQL	March 2016	TEQIP II

Conference	N	RETICS'17 (National Conference On Recent Trends In Computer Networks)	March 21st,22nd 2017	TEQIP II
Colloquium	N	Research Opportunities in Computer Networks	March 4th 2017	TEQIP II

*N/I – National/ International

26. Student profile programme / course wise

Programme (Admission)	Academic Year	Sanctioned Intake						Enrolled	
		SM*	TFW*	MGMT*	NRI*	LE*	Total	M*	F*
B.Tech Information Technology	2012-13	17	2	10	4	3	36	4	12
	2013-14	17	2	10	4	3	36	6	16
	2014-15	17	2	10	4	3	36	9	20
	2015-16	17	2	10	4	3	36	5	16
	2016-17	17	2	10	4	3	36	2	15

(*SM – State Merit, TFW - Tuition Fee Waiver, MGMT - Management, NRI - Non Resident Indian, LE – Lateral Entry, M - Male, F – Female)

(a) Student Pass percentage

Academic period	Appeared Students	Passed Students	Pass %
2008-12	26	15	54.55
2009-13	16	11	68.75
2010-14	22	12	54.55
2011-15	29	17	58.62
2012-16	21	10	47.62

27. Diversity of Students

Academic year	Percentage of Kerala Students	Percentage of Students from Other States	Percentage of Students from Abroad
2012-13	100	-	-
2013-14	100	-	-
2014-15	100	-	-
2015-16	100	-	-

2016-17	100	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services etc.

Competitive Examination	2012	2013	2014	2015	2016
GATE				1	

29. Student Progression

Student Progression	2012-13(%)	2013-14(%)	2014-15(%)	2015-16(%)	2016-17(%)
UG to PG				3.57	
PG to Ph.D.	Nil	Nil	Nil	Nil	Nil
Employed Campus Selection	25	31.81	13.79	4.76	

30. Details of Infrastructural facilities

Library

No.	Descriptions	Quantity in Numbers	
1	Books for students circulation(Central Library)	Titles	5983
		Volume	19401
2	Books in the department library for reference	Titles	21
		Volume	24
3	Technical Journals (Central Library)	National	26
		International	6
		e-journals	7
4	Technical magazines subscribed(Central Library)	7	
5	News Papers(Central Library)	8	
6	Educational CD's(Central Library)	Available	
7	Powerpoint Presentations(Central Library)	Not Available	
8	Illustrative charts/ Models etc.	Not available	

Computer Facilities

No.	Items	Quantity in Numbers
1	Server class computer	1
2	Desktop computer	180
3	Laptops	4
4	Laser Printers	1
5	Dotmatrix Printers	1
6	Scanner	1

All the above systems are in LAN with internet facility. All the computers are UPS connected.

Licensed Software

1. Windows 2000 server UML
2. Windows 98 Software Design - ADOBE
3. Windows 7 MI Power
4. Redhat HFSS
5. Windows 2012 server Model Sim
6. Ubuntu Mathlab
7. Fedora Multi sim
8. Norton Antivirus Lab view
9. Ms Office 2000 EDA Tool
10. Visual studio professional 6.00 Orcad
11. StudioMX 2004 Autocad
12. Kaspersky internet security STAAD
13. Ms Office 2007 Primavera
14. Visual studio professional 2008

Class room Facility

No	Usage	Quantity (nos)	Capacity	Area (m^2)	Facilities
1	Class Room (206)	1	60	69.01	Podium, Raised Platform, Black board, White board, Internet facility.
2	Class Room (215)	1	60	69.01	Podium, Raised Platform, Black board, White board, Internet facility, Projector.
3	Class Room (216)	1	60	33.87	Podium, Black board, Internet facility.
4	Class Room (217)	1	30	24.85	Podium, Black board, White board, Internet facility.

Laboratory Details

No	Name of Laboratory	Area (m^2)	Facilities
1	Project Lab	69.01	Air Conditioner, UPS, Internet facility, Computer(8), Dot Matrix Printer(1), Scanner(1), Internet facility, Whiteboard
2	Object Oriented Programming Lab	68.88	Air Conditioner, UPS, Internet facility, Computer(35), Printer(1), Internet facility, Whiteboard
3	Linux Lab	69.01	Air Conditioner, UPS, Internet facility, Computer(35), Printer(1), Internet facility, Whiteboard, Networking Unit
4	Network Lab	69.01	Air Conditioner, UPS, Internet facility, Computer(35), Internet facility, Whiteboard

5	Hardware Lab	69.01	Computer Hardware Components

31. Number of students receiving financial assistance from college, university, government or other agencies

Name of the Scholarship	2011-12	2012-13	2013-14	2014-15	Total
Egrantz for SEBC and FC from the Governement of Kerala SC/ST/OEC	3	6	5	1	15
MCM from Ministry of Minority Affairs, Central Government	1	Nil	1	Nil	2
Central Sector Scholarship, Central Government General Student Scholarship	Nil	Nil	Nil	Nil	Nil
TKM-MCM Institute Level Scholarship	Nil	Nil	Nil	Nil	Nil

32. Details on student enrichment programmes (special lectures / workshops / seminar)

Year	Name of the Academicians/ Scientists/ Institution/Industry	Purpose of Visit
2015	Bitsforge Technologies Pvt. Ltd - (Raspberry Pi)	Workshop
2016	Prof.Bineesh Kumar(Cryptography)	Expert talk
	Mr. Sreekanth Vanga, PDQ softech PVt Ltd	Workshop
	Quest Innovative Solutions Pvt. Ltd	Workshop
	ICT Academy of Kerala	Technical Foundation Programme - A Bridge to Computer Science
	ICT Academy of Kerala	Induction Programme - Bhavishya
	ICT Academy	Soft Skill training for final year students.
	Career Launch	Aptitude training for final year students.
	Meet the CEOs	Workshop for pre final year students at UL Cyberpark Kozhikode
2017	AFLIT Company(Android Workshop)	Workshop
	Career Launcher	Pre-placement training programme

33. Teaching methods adopted to improve student learning

Aiming at the effectiveness of the teaching learning process, the department facilitates the use of various teaching tools such as

- Powerpoint presentation
- NPTEL
- Tutorial Sessions
- Moodle
- Modern resources – available with websites of IIT, MIT etc.
- e- Journals and e-books

34. Participation in Institutional Social responsibility (ISR) and Extension activities

Students participated in the following social welfare activities and faculty members coordinated the events:

- National Service Scheme
- Cleaning activities
- Planting trees

.

35. SWOC analysis of the department and Future

Strengths

- The department is enriched with experienced and dedicated faculty members.
- The department has adequate infrastructure with smart class rooms, highly equipped software and hardware laboratories.
- All faculty members have received pedagogical training from institutions like IIT and IIM.
- Remedial classes offered for academically weak students.
- Expert talks and workshops are conducted frequently for students.
- The department library has a good collection of books - 1200 titles and 2612 volumes for UG and PG courses.
- Keeping good relationship with alumni and extending their support to department activities.

Weaknesses

- Approval for more PG courses are required
- Less focus on research activities.
- No accredited programs.
- Misconception of societies about IT jobs

Opportunities

- Opportunity to acquire higher qualification for faculty
- Opportunity to collaborate with various institutions and industries to impart training classes and hands-on-training in the areas Information Technology

- Newly coming Cyber Park at Cheemeni.
- Availability of funds from various agencies.

Challenges

- Maintain excellent performance among the colleges under APJ Abdul Kalam Technological University.
- Mould the students to cope with latest trends in IT industries.

Future Plans

- Increased number of faculty with PhD
- Better recognition of institute at the national level through academic performance, better placement, socially committed projects, conducting national symposium etc.
- Starting PG programmes
- Achieve and sustain accreditation at the highest level
- Enhancing library facilities and establishing digital library.
- Promote activities of professional bodies through obtaining professional body membership for the department.
- Establish effective networking with alumni.

DEPARTMENT OF CIVIL ENGINEERING

Evaluative Report

1. Name of the Department: Civil Engineering

2. Year of Establishment: 2009

3. Names of Programmes /Courses offered:

No		Engineering/Technology	Year of Starting
1	UG	B.Tech Civil Engineering	2009

4. Names of Interdisciplinary courses and the Departments/units involved:

UG

No	Subjects	Semester	Departments Involved
1	Engineering Mathematics-I	I or II	Mathematics
2	Engineering Physics	I or II	Physics
3	Engineering Chemistry	I or II	Chemistry
4	Engineering Graphics	I or II	Mechanical Engineering
5	Basic Mechanical Engineering	I or II	Mechanical Engineering
6	Basic Electrical Engineering	I or II	Electrical&Electronics Engineering
7	Basic Electronics Engineering	I or II	Electronics & Communication Engineering
8	Computer Programming	I or II	Computer Science & Engineering
9	Mechanical Engineering Workshop	I or II	Mechanical Engineering
10	Electrical &Electronics Engineering Workshop	I or II	Electrical &Electronics Engineering
11	Computer Programming Laboratory	I or II	Computer Science & Engineering
12	Engineering Mathematics –II	III	Mathematics

13	Engineering Mathematics –III	IV	Mathematics
14	Fluid Mechanics Laboratory	IV	Mechanical Engineering

UG : KTU 2015 Scheme

No	Subjects	Semester	Departments Involved
1	Calculus	I	Mathematics
2	Engineering Chemistry	I	Chemistry
3	Engineering Graphics	I	Mechanical Engineering
4	Basics of Mechanical Engineering	I	Mechanical Engineering
5	Mechanical Engineering Workshop	I	Mechanical Engineering
7	Differential Equations	II	Mathematics
8	Engineering Physics	II	Physics
9	Basics of Electronics Engineering	II	Electronics & Communication Engineering
10	Basics of Electrical Engineering	II	Electrical &Electronics Engineering
11	Engineering Physics Laboratory	II	Physics
12	Electrical Engineering Workshop	II	Electrical &Electronics Engineering
13	Electronics Engineering Workshop	II	Electronics & Communication Engineering
14	Design Engineering	I or II	Mechanical Engineering
15	Business Economics	III or IV	Applied Science

5. Annual/semester/choice based credit system (programme wise)

No	Engineering/Technology	Programme	Annual/Semester Credit System
1	UG	B. Tech	Semester Based Credit System

6. Participation of the department in the courses offered by other departments

UG: CUSAT 2012 Scheme

No	Subjects	Semester	Department
1	Engineering Mechanics	I or II	ECE, EEE, CSE,IT
2	Basic Civil Engineering	I or II	ECE, EEE, CSE,IT
3	Introduction to Sustainable Engineering	I or II	ECE,EEE,CSE,IT
4	Civil Engineering Workshop	I or II	ECE,EEE,CSE,IT

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

Nil

8. Details of courses/ program discontinued (if any) with reasons:

Nil

9. Number of teaching posts

No	Teaching post	Sanctioned	Filled
1	Professors	1	Nil
2	Associate Professors	1	Nil
3	AssistantProfessors	10	12

10. Faculty profile with name, qualification, designation, specialization:

2015-16

No	Name	Qualification	Designation	Specialization	Years of experience
1	SHYNI T V	M-Tech pursuing	Assistant Professors	Computer aided Structural engineering	7
2	LAYA RAJ	M-Tech	Assistant Professors	Environmental Engineering	5
3	SEKHAR J	M-Tech	Assistant Professors	Environmental Geotechnical Engineering	3
4	GEORGE ALEX	M-Tech	Assistant Professors	Structural Engineering	5
5	JIKHIL JOSEPH	Ph.D. Pursuing	Assistant Professors	Structural Engineering	3.5

6	ABEY.E. THOMAS	Ph.D.	Assistant Professors	Structural Engineering	4
7	ANSY A	M-Tech	Assistant Professors	Structural Engineering	4
8	WINSOR RAJ	M-Tech	Assistant Professors	Geotechnical engineering	3
9	FEMY MARIYA THOMAS	M Tech	Adhoc Assistant Professors	Structural engineering & construction management	Nil
10	KAVYA NARAYANAN A	M Tech	Adhoc Assistant Professors	Geotechnical engineering	Nil
11	ANJANA M	M Tech	Adhoc Assistant Professors	Geotechnical engineering	Nil
12	SRUTHI P	M Tech	Adhoc Assistant Professors	Construction engineering & management	Nil
13	SOORYA P P	M Tech	Adhoc Assistant Professors	Remote sensing and GIS	Nil
14	SYNDHYA GEORGE	M Tech	Adhoc Assistant Professors	Construction engineering & management	Nil
15	ADARSH R NAIR	M Tech	Adhoc Assistant Professors	Environmental Engineering	5
16	ASHWATHI SREEDHARAN	M Tech	Adhoc Assistant Professors	Computer aided Structural engineering	Nil

11. List of senior visiting faculty:

Nil

12. Percentage of lectures delivered and practical classes handled (program wise) by temporary faculty:

UG - 60%

13. Student -Teacher Ratio:

UG Programme

No	Academic Year	Student Strength				Faculty strength	Student-Teacher Ratio
		II	III	IV	Total		
1	2011-12	60	69	72	201	11	18.27
2	2012-13	69	72	72	213	16	13.31
3	2013-14	69	69	71	209	18	11.61
4	2014-15	60	69	69	198	14	14.14
5	2015-16	68	60	69	197	14	14.07

14. Number of academic support staff (technical) and administrative staff sanctioned and filled

Description	2011-12		2012-13		2013-14		2014-15		2015-16		2016-17	
	S *	F *	S	F	S	F	S	F	S	F	S	F
Technical Staff	5	2	5	2	5	5	5	5	5	4	5	4
Administrative Staff	6	6	6	6	6	6	7	7	7	7	7	7

*S = Sanctioned *F= Filled

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG

NO	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
B-Tech	7	11	7	7	9	1
M-Tech	4	5	11	7	5	14
Ph.D.	0	0	0	0	0	1

16. Number of faculty with ongoing projects from National/ International funding agencies and grants received:

Nil

17. Department projects funded by DST-FIST, UGC, DBT, ICSSR etc. and total grants received:

Nil

18. Research Centre/Facilities recognized by the University:

Nil

19. Publications: Last four years (Details enclosed as Annexure)

a. Number of publications by Faculty (2011- 2015)

No	Publications	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17l
1	Journals	-	-	-	1	1	3
2	International Conferences	-	2	2	4	1	1
3	National Conferences	1	1	3	4	1	-
4	Books	-	-	-	-	-	-

b. Number of publications by Students (2011- 2015)

No	Publications	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
1	Referred Journals	-	-	-	-	-	-
2	International Conferences	-	-	-	-	-	1

20. Areas of consultancy and income generated

Name of Laboratory	2011-12	2012-13	2013-14	2014-15	2015-16	Total(Rs)
	Income Generated (Rupees)					
Concrete Lab	Nil	Nil	Nil	Nil	27000	27000
	Grand total					27000

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards

No	Name of Staff	Membership in Professional Bodies/ Committees	
		National	International
1	Sekhar J	IGS	-
2	Abey E. Thomas	ICI	-
3	Jikhil Joseph	ICI	-
4	George Alex	ISTE	-
5	Kavya Narayanan A	IGS	-

22. Student Projects

Percentage of students who have done in-house projects including interdepartmental / programme

UG: 100%

23. Awards/Recognitions received by faculty and students

Nil

24. List of eminent academicians and scientists/visitors to the department

Visitor Name and Address/Position	Date	Academic Year
2015-16		
T P Somasundaran,Professor ,Dept.of Civil Engineering, NITC	16th April	2016
A S Sajith, Assistant Professor,Dept.of Civil Engineering, NITC	18th April	2016
N Ganesan, Professor ,Dept.of Civil Engineering, NITC	19th April	2016
Seena, Assistant Professor,Dept.of Civil Engineering,Thrissur	20th April	2016
Reghu,AssistantProfessor,Dept.of Civil Engineering,Wayanadu	21th April	2016

25. Seminars/Conferences/Workshops organized & the source of funding

a) National b) International

Seminars / Conferences / Workshops	N/I*	Title	Date	Funding Agencies	Co-ordinator
High Intensity Training Programme	N	High Intensity Training Programme- CE	23/01/2017	World Bank-(TEQIP-II)	Winsor Raj
Workshop	N	Workshop on Autocad 2D	19/08/16 20/08/16 22/08/16	World Bank-(TEQIP-II)	Abey E Thomasand Winsor Raj
Workshop	N	Workshop on Autocad 2D and 3D	30-31ST October 2016 01/09/16	World Bank-(TEQIP-II)	Abey E Thomas, Winsor Raj and AnsyA
STTP	N	STTP on Structural Engineering	18 to 23 April 2016	World Bank-(TEQIP-II)	Abey E Thomas & Jikhil Joseph
Workshop	N	Workshop on Life Skill	07/10/2016 to 09/10/2016	World Bank-(TEQIP-II)	Winsor Raj
Research Colloquium	N	Colloquium on research opportunities in Geotechnical Engineering	21/01/2017	World Bank-(TEQIP-II)	Sekhar J Winsor Raj Femi Maria Thomas
Workshop	N	Workshop on Aptitude Training	18 to 21 March 2017	World Bank-(TEQIP-II)	George Alex Adarsh R Nair Anjana M
Workshop	N	Workshop on Auto Cad & 3D max		World Bank-(TEQIP-II)	Sekhar J Laya Raj

26. Student profile programme/ course wise

UG Programme

Academic Year	Applications received	Enrolled		Total
		*M	*F	
2011-2012	Allotted from common rank list prepared	20	33	53

2012-2013	by Entrance Commissioner, Govt. of Kerala	23	28	51
2013-2014		13	20	33
2014-2015		15	41	56
2015-2016		26	27	53
2016-2017		25	29	54

*M= Male, *F= Female

Students pass percentage for the past four years

Programme	2012-13	2013-14	2014-15	2015-16
B-Tech Civil Engineering	57	79	62	65

27. Diversity of Students

UG Programme

Name of Course	Academic Year	% Students from Kerala	% Students from other States	% Students from other countries
Civil Engineering	2011-2012	100	-	-
	2012-2013	100	-	-
	2013-2014	100	-	-
	2014-2015	100	-	-
	2015-2016	99	1	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.

Name of the Competitive Exam	2011-12	2012-13	2013-14	2014-15	2015-16
GATE			4	3	1

NET					
CAT					
GMAT					
MAT					
GRE					
IES					
IBPS(Inst of Banking Professional Selection)					
SSC					
Common Entrance Examination for					
Design(CEED,IIT Mumbai)					
TANCET (TamilNaduCommon Entrance)					
NICMAR					
Railway Recruitment Board(RRB)					
Kerala Public Service Commission(KPSC)					

29. Student Progression

Student Progression	2011- 12	2012-13	2013-14	2014-15	2015-16
UG to PG (in %)	-	-	-	-	-
Placed	-	32	14	-	-

30. Details of Infrastructural facilities

Library

No.	Descriptions	Quantity in Numbers	
1	Books for students circulation(Central Library)	Titles	4482
		Volume	19401
2	Books in the department library for reference	Titles	102
		Volume	262
3	Technical Journals (Central Library)	International	6
		National	26

		e-journals	7
4	Technical magazines subscribed (Central Library)	7	
5	Educational CDs (Central Library)	Available	
6	Newspaper	8	
7	NPTEL Videos (Central Library)	-	

Internet facilities for staff & students

No	Items	Quantity
1	Computer with internet facilities	37
3	Bandwidth	100mbps
4	Network facilities for all computers	36
5	Printers	4
6	Scanner	1
7	Web Camera	1

Class rooms with ICT facility

No.	Description	Number of rooms
1	Class room with Black Board ,White Board	5
2	ICTfacilities	2

Laboratories :UG Programme

No.	Name of the Lab	No. of Students/ Batch	Groups	No of Students per Group	Area in sq.m
1	CAD Lab	30 to 35	nil	Nil	131.83

2	Concrete Lab	30 to 35	5	6 to 7	187.5
3	Environmental Engineering Lab	30 to 35	5	6 to 7	69.18
4	Geotechnical Engineering Lab	30 to 35	5	6 to 7	216.75
5	Material Testing Lab	30 to 35	5	6 to 7	187.5
6	Survey Lab	30 to 35	5	6 to 7	62.5
7	Transportation Engineering Lab	30 to 35	5	6 to 7	216.75
8	Civil Engineering Workshop	30 to 35	5	6 to 7	62.5
9	NDT Lab	30 to 35	5	6 to 7	69.7

31. Number of students receiving financial assistance from College, University, government or other agencies

UG Programme

Name of the Scholarship	Year					Total
	2012-13	2013-14	2014-15	2015-16	2016-17	
E-grants	9	6	6	5	20	46
MCM Scholarship	3	2	3	3	-	11

32. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts (2011-2015)

Sl No	Year	Name of the Academicians/ Scientists/ Institution/Industry	Type of the programme	Co-ordinator
1	2016	Mr. Arun S AP,CE RIET, Attingal	Expert talk on Consolidation of soil	Winsor Raj
2	2016	Mr. Arun S AP,CE RIET, Attingal	Expert talk on Compaction of soil	Winsor Raj
3	2016	Dr. George K Varghese AP, NIT C	Expert talk on Surveying using Total Station	Abey E Thomas

4	2016	Mrs.VijilaBalakrishnan Assistant Prof., SSNIT, Kanhangad and Mr. John Paul Assistant Prof., Arunachala College of Engineering for Women, Nagarcoil	Expert talk on Applications of sustainability	Sruthi P and Syndhya George
5	2016	Resource Person from ICTAcademy	Expert talk	Anjana M
6	2016	Mr.Jinson M Emmanuel, Senior Design Engineer at L& T Constructions Chennai	Expert talk on Career options in Civil Engineering	Jikhil Joseph & Sigma Sunny
7	2016	Mr. KrishnachandranV.N ,Sreepathy Institute of Management Technology Palakkad	Expert talk on Risks & Challenges in the execution of hydro electric power projects	Jikhil Joseph & George Alex
8	2017	Mr.Saji K P AP, CE GEC,Kannur	Expert talk on Design of Steel Structures	Abey E Thomas
9	2017	Mr. Anil Kumar B C AP, ME LBS, Kasargod	Expert talk on Engineering Mechanics	Abey E Thomas
10	2017	Mr. Anil Kumar B C AP, ME LBS, Kasargod	Expert talk on Fundamentals of Engineering Mechanics	Abey E Thomas
11	2017	Mr. Unnikrishnan B AP, CE Sreebuddha College of Engineering Pattoor	Expert talk on Transportation Engineering	Abey E Thomas
12	2017	Mr Ashok Mathew AP, CE Sreebuddha College of Engineering Pattoor	Expert talk on Structural Analysis	Abey E Thomas
13	2017	Dr. Sajith A S AP, CE NIT C	Expert talk on Introduction to Structural Dynamics	Abey E Thomas
14	2017	Dr. George K Varghese AP,CE NIT C	Expert talk on Introduction to Solid waste management	Abey E Thomas
15	2017	Mr. Reghu Kumar AP, CE GEC Kozhikode	Expert talk on introduction to Matrix Analysis	Abey E Thomas
16	2017	Mrs. Sigma Sunny T AP, CE, College of Engineering, Muttathara	Expert talk on Turbines and Pumps	Sekhar J

17	2017	Mrs. Sigma Sunny T AP, CE, College of Engineering, Muttathara	Expert talk on Engineering Mechanics	Sekhar J
18	2017	Mr. Firoz	Expert talk on Construction Safety and Fire Engineering	Soorya P P
19	2017	Mrs. SheejaT V AP, CE SSNIT,Kanhangad	Expert talk on Construction Technology	Sruthi P

33. Teaching methods adopted to improve student learning:

- Use of multimedia in delivery of lectures
- Conducting tutorials. Subject related problems are made for the students to practice and guidance are given. This improves the problem solving skills of students. Also make them understanding of topics, concepts etc.
- Organizing expert lectures
- Organizing Workshops
- NPTEL video lectures can be accessed by the students for further references.
- Taking seminar by the students itself on respective subject.
- Remedial classes are arranged for students

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Students participated in the following social welfare activities and faculty members coordinated the events:

- National Service Scheme
- Cleaning activities
- Planting trees inside the campus

35. SWOC analysis of the Department and future plans:

Strengths

- The department is enriched with Young and dedicated faculty members.
- The department has adequate infrastructure with smart class room, equipped laboratories.
- All faculty members have received pedagogical training from institutions like IIT Madras.
- Remedial classes offered for academically weak students.
- Expert talks and workshops are conducted frequently for students.
- Faculty student ratio 1:15 is maintained.
- Facilities for competitive online exams.
- Faculty members have membership in various professional bodies like IGS ICI, ISTE.

- Faculty adept in handling consultancy projects such as structural design, material property testing, evaluation of structural stability, monitoring of construction works and valuation of buildings

Weaknesses

- PhD holders are few in number
- Campus placement in core companies are less
- The program is not accredited.
- Poor communication skill of students
- Located away from industrial area
- Student management system is not automated
- Less focus on research activities

Opportunities

- Opportunity to acquire higher qualification for faculty.
- Availability of funds from various agencies.
- Newly coming cyber park at Cheemeni
- Availability of land
- To engage in technical consultancy assignments with industries

Challenges

- Maintain excellent performance among the colleges under APJ Abdul Kalam Technological University
- Equipping students for better placement opportunities
- Declining quality of students seeking admission in engineering

Future Plans

- Propose modern technologies for improving the way of teaching learning process
- Offer more number of faculty with higher qualification
- Offer PG programmes
- Achieve and sustain accreditation at the highest level
- Take up Funded projects
- Encourage Entrepreneurship among students.
- Better recognition of institute at the national level through academic performance and better placement

ANNEXURE

ANNEXURE A. DECLARATION BY THE HEAD OF THE INSTITUTION

ANNEXURE A. DECLARATION BY THE HEAD OF THE INSTITUTION

COLLEGE OF ENGINEERING TRIKARIPUR
(Under Co-operative Academy of Professional Education-Estd. By Govt of Kerala)
CHEEMENI- 671313, KASARAGOD DISTRICT
E-mail: tkrcape@gmail.com Website: www.cetkr.ac.in
Principal : 0467-2250977; 0467-2250377; FAX: 0467-2250750

DECLARATION BY THE HEAD OF THE INSTITUTION

I certify that the data included in this self-study Report (SSR) are true to the best of my knowledge .

This SSR is prepared by the institution after internal discussions and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the Peer team visit.

Cheemeni

Date 20:02:17

PRINCIPAL

ANNEXURE B. CERTIFICATE OF COMPLIANCE

ANNEXURE B.CERTIFICATE OF COMPLIANCE

COLLEGE OF ENGINEERING TRIKARIPUR
(Under Co-operative Academy of Professional Education-Estd. By Govt of Kerala)
CHEEMENI- 671313, KASARAGOD DISTRICT
E-mail: tkrcape@gmail.com Website: www.cetkr.ac.in
Principal : 0467-2250977; 0467-2250377; FAX: 0467-2250750

CERTIFICATE OF COMPLIANCE

(Affiliated / Constituent / Autonomous colleges and Recognized Institutions)

This is to certify that **COLLEGE OF ENGINEERING TRIKARIPUR** fulfils all norms

1. Stipulated by the affiliating University and/or
2. Regulatory council/Body [such as UGC,NCTE,AICTE,MCI,DCI,BCI, etc] and
3. The affiliation and recognition[if applicable] is valid as on date

In case the affiliation /recognition is conditional,then a detailed enclosure with regard to compliance of conditions by the institution will be sent

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically,once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NACC will be displayed on the college website.

Cheemeni

Date 20:03:17

PRINCIPAL

TKRCET/SSR

ANNEXURE C. AICTE APPROVAL ORDER

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-West/1-2811982204/2016/EOA

Date: 30-Apr-2016

To,

The Principal Secretary,
Deptt. Of education, Govt. of Kerala,
Govt. Sectt. Annexe,
Thiruvananthapuram-695001

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-West	Application Id	1-2811982204
Name of the Institute	COLLEGE OF ENGINEERING TRIKARIPUR	Permanent Id	1-6182378
Name of the Society/Trust	CO OPERATIVE ACADEMY OF PROFESSIONAL EDUCATION KERALA	Institute Address	CHEEMENI P O KASARAGOD DISTRICT PIN 671313, CHEEMENI, KASARAGOD, Kerala, 671313
Institute Type	Government	Society/Trust Address	CO BANK TOWER FIRST FLOOR VIKAS BHAVAN P O,TRIVANDRUM,TRIVANDRUM,Kerala,695033

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: 1-2811982204			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 TECHNOLO	1st Shift	UNDER GRADUA	CIVIL ENGINEERING	FULL TIME	KERALA TECHNOLOGICAL UNIVERSITY	60	60	Yes	NA	NA

Application Number: 1-2811982204
Note: This is a Computer generated Report.No signature is required.

Page 1 of 3
Letter Printed On:14 June 2016

Printed By : ae4037141

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

GY		TE								
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	KERALA TECHNOLOGICAL UNIVERSITY	60	60	Yes	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRICAL AND ELECTRONICS ENGINEERING	FULL TIME	KERALA TECHNOLOGICAL UNIVERSITY	60	60	Yes	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	FULL TIME	KERALA TECHNOLOGICAL UNIVERSITY	60	60	Yes	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	KERALA TECHNOLOGICAL UNIVERSITY	30	30	Yes	NA	NA

The above mentioned approval is subject to the condition that COLLEGE OF ENGINEERING TRIKARIPUR 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.

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

Prof. Alok Prakash Mittal
Member Secretary, AICTE

Copy to:

1. **The Regional Officer,**
   All India Council for Technical Education
   Health Centre Building
   Bangalore University Campus
   Bangalore - 560 009, Karnataka
2. **The Director Of Technical Education,**
   Kerala

Application Number: 1-2811982204
Note: This is a Computer generated Report.No signature is required.
Printed By : ae4037141

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

3. **The Registrar,**
KERALA TECHNOLOGICAL UNIVERSITY

4. **The Principal / Director,**
COLLEGE OF ENGINEERING TRIKARIPUR
CHEEMENI P O
KASARAGOD DISTRICT
PIN 671313,
CHEEMENI,KASARAGOD,
Kerala,671313

5. **The Secretary / Chairman,**
CO OPERATIVE ACADEMY OF PROFESSIONAL EDUCATION KERALA
CO BANK TOWER FIRST FLOOR VIKAS BHAVAN P O,
TRIVANDRUM,TRIVANDRUM,
Kerala,695033

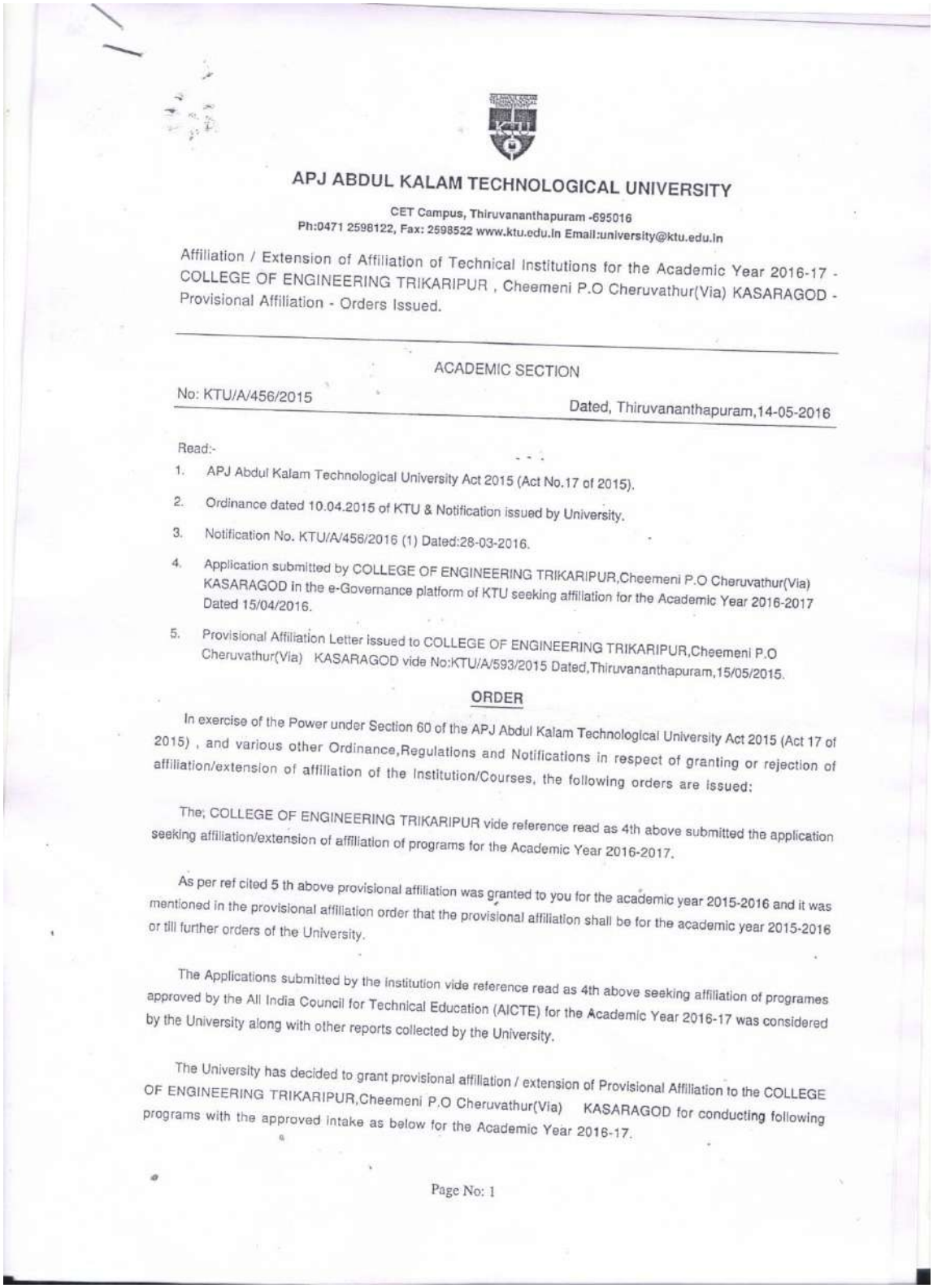
6. **Guard File(AICTE)**

Application Number: 1-2811982204
Note: This is a Computer generated Report.No signature is required.

Letter Printed On:14 June 2016

Printed By : ae4037141

ANNEXURE D. AFFILIATION ORDERS



APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

CET Campus, Thiruvananthapuram -695016
Ph:0471 2598122, Fax: 2598522 www.ktu.edu.in Email:university@ktu.edu.in

Affiliation / Extension of Affiliation of Technical Institutions for the Academic Year 2016-17 - COLLEGE OF ENGINEERING TRIKARIPUR , Cheemeni P.O Cheruvathur(Via) KASARAGOD - Provisional Affiliation - Orders Issued.

ACADEMIC SECTION

No: KTU/A/456/2015 Dated, Thiruvananthapuram,14-05-2016

Read:-

1. APJ Abdul Kalam Technological University Act 2015 (Act No.17 of 2015).
2. Ordinance dated 10.04.2015 of KTU & Notification issued by University.
3. Notification No. KTU/A/456/2016 (1) Dated:28-03-2016.
4. Application submitted by COLLEGE OF ENGINEERING TRIKARIPUR,Cheemeni P.O Cheruvathur(Via) KASARAGOD in the e-Governance platform of KTU seeking affiliation for the Academic Year 2016-2017 Dated 15/04/2016.
5. Provisional Affiliation Letter issued to COLLEGE OF ENGINEERING TRIKARIPUR,Cheemeni P.O Cheruvathur(Via) KASARAGOD vide No:KTU/A/593/2015 Dated,Thiruvananthapuram,15/05/2015.

ORDER

In exercise of the Power under Section 60 of the APJ Abdul Kalam Technological University Act 2015 (Act 17 of 2015) , and various other Ordinance,Regulations and Notifications in respect of granting or rejection of affiliation/extension of affiliation of the Institution/Courses, the following orders are issued:

The; COLLEGE OF ENGINEERING TRIKARIPUR vide reference read as 4th above submitted the application seeking affiliation/extension of affiliation of programs for the Academic Year 2016-2017.

As per ref cited 5 th above provisional affiliation was granted to you for the academic year 2015-2016 and it was mentioned in the provisional affiliation order that the provisional affiliation shall be for the academic year 2015-2016 or till further orders of the University.

The Applications submitted by the institution vide reference read as 4th above seeking affiliation of programes approved by the All India Council for Technical Education (AICTE) for the Academic Year 2016-17 was considered by the University along with other reports collected by the University.

The University has decided to grant provisional affiliation / extension of Provisional Affiliation to the COLLEGE OF ENGINEERING TRIKARIPUR,Cheemeni P.O Cheruvathur(Via) KASARAGOD for conducting following programs with the approved intake as below for the Academic Year 2016-17.

Page No: 1

No	Program Type	Level	Branch/Stream	Approved Intake	Full/Part Time	NRI	PIO
1	Engineering and Technology	UG	CIVIL ENGINEERING	60	Full Time	Yes	No
2	Engineering and Technology	UG	ELECTRICAL AND ELECTRONICS ENGINEERING	60	Full Time	Yes	No
3	Engineering and Technology	UG	COMPUTER SCIENCE & ENGINEERING	60	Full Time	Yes	No
4	Engineering and Technology	UG	ELECTRONICS & COMMUNICATION ENGG	60	Full Time	Yes	No
5	Engineering and Technology	UG	INFORMATION TECHNOLOGY	30	Full Time	Yes	No

The provisional affiliation shall be for the academic year 2016-17 or till further orders of the University and the provisional affiliation granted here is subject to the following conditions.

i. Verification of facts submitted by the institution in the e-Gov platform by the University.

ii. The Institution shall remit the affiliation fee of Rs.500000.00 by way of online payment through institute portal within 15 days from the date of this Order.

iii. The Institution shall observe the Clause 60 (2) of the Act establishing the APJ Abdul Kalam Technological University, the norms and standards prescribed by the AICTE in the Approval Process Handbook 2016-2017,and the guidelines by the University from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

iv. Strict compliance of Anti-Ragging Regulation notified vide F.No.37-3/Legal/AICTE/2009 Dated July 1,2009 for Prevention, and Prohibition of Ragging in Technical Institution /UGC regulations.In case Institution fails to take adequate steps to prevent Ragging 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.

Non -compliance with any of the conditions will result in the withdrawal of the affiliation without any notice.

Sd/-
Dr. PADMAKUMAR G P*
Registrar

To,

1. The Principal, COLLEGE OF ENGINEERING TRIKARIPUR,Cheemeni P.O Cheruvathur(Via) KASARAGOD.
2. The Chairman, Co-Operative Academy of Professional Education,Cheemeni P.O,Cheruvathur(Via) KASARAGOD.
3. PS to Honble Vice Chancellor.
4. PS to Honble Pro Vice Chancellor.
5. The Secretary, Higher Education Department, Govt Secretariate, Govt of Kerala.
6. The Commissioner for Entrance Examinations, Housing Board Jn, Thiruvananthapuram.
7. Member Secretary, AICTE, New Delhi.
8. PA to Registrar.
9. Academic Section.

*** This is a computer system generated letter. Hence there is no need for a physical signature.**

COCHIN UNIVERSITY OF SCIENCE & TECHNOLOGY

(Abstract)

Cochin University of Science and Technology- Recognised Institutions – Extension of Provisional Recognition for the Academic Year 2014-15 – Sanctioned – Orders issued.

ACADEMIC 'C' SECTION

Ac.C3/Extn. Prov. Recog/14-15 Dated, Kochi -22, 20.05.2014

Read : 1. UO No.Ac.C3/Insp. Com/Const/2014-15 dated 18-01-2014

2. Minutes of the meeting of the Syndicate held on 26-04-2014 (Item No.610.32&610.94)

3. DO Letter No.CEF/4848/2013/KEAM 2014/TA1 dated 08-05-14 from the Commissioner for Entrance Examinations, Kerala

4. Letter No.F.1-29/CM/AICTE/2012 dt.12-05-2014 from the Chairman All India Council for Technical Education.

ORDER

1. The inspection committees constituted by the Vice Chancellor vide the UO read (1) for conducting the Annual Inspection of the Recognised Institutions for extension of Provisional Recognition for the Academic Year 2014-15 have submitted their reports.

2. The Syndicate of the University considered the matter at its meeting held on 26-04-2014 (Item No.610.32and 610.94) have considered the reports with regard to 16 of the recognised institutions and resolved that 'the Provisional Recognition of the colleges can be extended after obtaining Government Concurrence and that the same be communicated to the colleges'.

3. The Chairman, All India Council for Technical Education vide letter read as paper (4) has informed that the Honourable Supreme Court of India has ruled that 'prior approval of AICTE is compulsory and mandatory for conduct of technical course including the Management/MBA course by an existing affiliated Technical College and also new Technical College and requested to ensure that no Technical Institute/Technical College is considered or granted affiliation unless it has obtained prior approval of AICTE for the academic session 2014-15'. The process of approval of the Technical institutions have been started by AICTE accordingly.

4. The Commissioner for Entrance Examinations, Kerala, vide letter read as (3) has pointed out that the Hon'ble Supreme Court of India has fixed the time limit for granting approval of Engineering Colleges on 15-05-2014. Hence the Commissioner has requested to submit

the order of affiliation of all Engineering & Architecture courses to his office by 20-05-2014.

5. Considering the urgency in the matter, the Vice Chancellor, invoking his powers under Section 11(11) of CUSAT Act 1986, approved the inspection committee reports for the year 2014-15 in respect of the 27 recognised institutions of the University , subject to ratification by the Syndicate. Vice Chancellor has also accorded sanction, subject to ratification by Syndicate, to extend provisional recognition to the 27 recognised institutions as listed in the appendix to this University order for the academic year 2014 -15 subject to the approval of the State Government and AICTE.

6. Orders are therefore issued extending Provisional Recognition of these colleges as per the details appended to this UO, subject to the remittance of the required fees due to the University before 30-05-2014, and also subject to the following terms and conditions.

i) The provisional recognition now granted is valid for 2014-15 Academic year only.

ii) All rules/regulations/conditions regarding admission of students, reservation of seats, etc. stipulated by the AICTE, State Government and the University from time to time will be implemented/fulfilled by the institution, if so required.

iii) It is mandatory for the college to depute eligible faculty members for valuation duties in the University, as and when called for by the University.

iv)All necessary infrastructural facilities will be provided by the management.

v) Prior approval of the University is mandatory for any change in the course(s)/intake.

vi) The recognised institution should obtain renewal of recognition at the start of each academic year, after fulfilling all necessary preconditions therefore.

vii) The Recognised Institution should rectify the defects, if any, pointed out by the Inspection Committee before seeking further extension

viii) Conduct of examinations and award of degrees will be done by the University.

ix) The recognised institution should pay annual recognition fee as well as other fees as stipulated by the University from time to time.

x) The University reserves the right to visit the institutions at any time to satisfy itself of the compliance of the terms and conditions.

xi) Non-fulfilment of any condition will lead to withdrawal of recognition/non-renewal of recognition.

Sd/-
Dr. K SAJAN
Professor in-charge of Registrar

To,

1. The Commissioner for Entrance Examinations, Fifth Floor, Housing Board Buildings, Santhi Nagar, Thiruvananthapuram – 695 001-with C/L
2. The Principals of the concerned colleges
3. Finance Officer /Controller of Examinations/JDLFA
4. Joint Registrar (Academic/Examination)
5. All Deputy Registrars/Assistant Registrars in Exams/Academic
6. All Sections in Examination
7. Finance/IA & I/Audit/Conference/Academic A/Confidential Section
8. Day File /Stock File /File Copy

Forwarded/By order

Section Officer (Academic C)

Sl. No.	Recognised Institutions	B. Tech course with strength in brackets	M. Tech course with strength in brackets
13	K V M College of Engineering & Information Technology, Kokkothamangalam PO, PB No.30, Cherthala,	1. Mechanical Engineering (60) 2. Civil Engineering (60) 3. Electrical & Electronics Engineering (60) 4. Electronics & Communication Engineering (60) 5. Computer Science & Engineering (60)	1. Master in Computer Application (60) 2. M Sc Biotechnology (30) 3. Master in Business Administration (60)
14	College of Engineering, Aranmula (NEW INSTITUTION) ++	1. Computer Science & Engineering (60) 2. Electronics & Communication Engineering (60) 3. Electrical & Electronics Engineering (60) 4. Civil Engineering (60)	
15	College of Engineering, Thrikkaripur, Cheemeni PO, Kasargod - 671 313	1. Computer Science & Engineering (60) 2. Electronics & Communication Engineering (60) 3. Electrical & Electronics Engineering (60) 4.Civil Engineering (60)	
16	T K M School of Architecture, Ezhukone, Kollam	1. B. Arch (40)	
17	College of Engineering, Vadakara, Mandarathur PO, Vadkara, Kozhikode - 673 105	1. Computer Science & Engineering (60) 2. Electronics & Communication Engineering (60) 3. Electrical & Electronics Engineering(60) 4. Electronics & Instrumentation (60) 5. Information Technology (60) 6. Civil Engineering (60) 7. Mechanical Engineering (60) (New course) +	1. Master of Computer Application (60)
18	College of Engineering, Kallooppara, Pathanamthitta - 689 603	1. Computer Science & Engineering (60) 2. Electronics & Communication Engineering (60) 3. Electrical & Electronics Engineering(60)	1. Electronics (Signal Processing) (24) 2. Computer Science (Cyber Forensics and Information Security) (24)
19	College of Engineering, Perumon, Perinad PO, Perumon, Kollam - 691 501	1. Electronics & Communication Engineering (120) 2. Computer Science & Engineering (60) 3. Electrical & Electronics Engineering(60) 4. Mechanical Engineering (60) 5. Information Technology (60)	1. Computer & Information Science (18) 2. Electronics (Wireless Technology) - 24 (New Course) + 3. Power Electronics - 24 (New Course) +

Sl. No.	Recognised Institutions	B. Tech course with strength in brackets	M. Tech course with strength in brackets
25	CONSPI Academy of Management Studies, Plankalamukku, Industrial Estate PO, Thiruvananthapuram - 695 019		1. Master of Business Administration (60)
26	College of Engineering, Kuriottumala, Piravanthoor, Pathanapuram, Kollam	1. Electronics & Communication Engineering (60) 2. Computer Science & Engineering (60) 3. Electrical & Electronics Engineering (60) 4. Civil Engineering (60)	
27	Indian Institute of Information Technology & Management - Kerala, 'Nila', Technopark, Thiruvananthapuram - 695 581		1. M Sc (Information Technology) (30) 2. M Phil (Ecological Informatics)(15) 3. M Sc (Computational Science)(30) 4. M Sc (Geoinformatics)(30) 5. M Phil (Computer Science)(15) 6. M Sc (Computer Science & Infomatin Security) (40)

+ New courses sanctioned subject to the NOC from the Government of Keala and the approval by AICTE

* Provisional Recognition for enhanced intake are subject to the approval by AICTE

++ New college sanctioned subject the approval by AICTE

Sd/-

Professor incharge of Registrar

Page 5 of 5

COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

(Abstract)

Recognised Institution – College of Engineering, Thrikkaripur – Recognition for B.Tech (Information Technology) – Request for reinstatement – Sanctioned – Orders issued.

ACADEMIC 'C' SECTION

No. Ac.C3/3572/COE-Thrikkaripur/2012 Dated, Kochi-22, 06.08.2014

Read:
(1) U.O. No. Ac.C3/Extn.Prov.Recog/14-15 dated 20.05.2014
(2) Letter No.A-1075/2014/CAPE/2164 dated 12.06.2014 from the Director, Co-operative Academy of Professional Education
(3) Letter No.CET/C/722/2009/435 from the Principal, College of Engineering, Thrikkaripur
(4) Letter No.A-1075/2014/CAPE dated 30.06.2014 from the Director, Co-operative Academy of Professional Education
(5) AICTE Approval letter No.South-West/1-2310949963/2014/EOA dated 04.06.2014
(6) Letter of even No. dated 04.07.2014

ORDER

The College of Engineering, Thrikkaripur, run by the Co-operative Academy of Professional Education (CAPE) is one of the Recognised Institutions of the University and had been conducting the B.Tech (Information Technology) Programme with an intake of 30. The Inspection Committee for the Academic Year 2014-'15 found that there was acute shortage of faculty in the department and recommended that the recognition for the programme be withdrawn. After due approval, orders as per the recommendation was issued vide the U.O. read as (1).

The Principal of the College and the Director, CAPE informed vide letters read as 3 and 4 that:

i. The college had adequate strength of faculty but some of the faculty were on long leave.
ii. The CAPE has transferred more faculty to the college to increase the strength of the department of Information Technology.
iii. The All India Council for Technical Education has given approval to the college to conduct the programme in the Academic Year 2014-'15.

Considering this, they requested to reinstate the programme. The matter was referred back to the Inspection Committee for its opinion. Considering the positive steps taken, as informed by the Principal and the Director, the Inspection Committee recommended that the programme B.Tech (Information Technology) may be reinstated in the College of Engineering, Thrikkaripur for the Academic Year 2014-'15.

Having considered the recommendation of the Inspection Committee, the Vice-Chancellor, invoking his powers under Section 11(11) of CUSAT Act, 1986, is pleased to order that the College of Engineering, Thrikkaripur be sanctioned to conduct the programme B.Tech (Information Technology) with an intake of 30 for the Academic Year 2014-'15, subject to ratification by the Syndicate.

Sd/-
ANSAR M.S.
ASSISTANT REGISTRAR (ACADEMIC)

To
1. The Commissioner for Entrance Examination – Kerala, Fifth Floor, Housing Board Buildings, Santhi Nagar, Thiruvananthapuram – 695 001 – (With covering letter)
2. The Director, Co-operative Academy of Professional Education, COBANK Towers, Vikas Bhavan P.O., Thiruvananthapuram – 695 033
3. The Principal, College of Engineering, Thrikkaripur, Cheemeni, Kasargod – 671 313
4. The Finance Officer/Controller of Examinations/Joint Director, Local Fund Audit
5. All Joint Registrars/Deputy Registrars/Assistant Registrars in Examination and Academic Wing
6. Finance/IA & I/Audit/Conference/Academic A/Exam G/ Confidential Section
7. Day file/Stock file/File copy

Forwarded/By Order

COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

(Abstract)

Recognized Institution – College of Engineering, Thrikkaripur – Re-instating recognition for B.Tech (Information Technology) branch – Sanctioned by the Vice-Chancellor – Ratification – Resolution of Syndicate – Communicated – Orders issued.

ACADEMIC 'C' SECTION

No.Ac.C3/3572/COE-Thrikkaripur/2012 Dated, Kochi – 22, 07.08.2015

Read : 1. U.O No.Ac.C3/Extn.Prov.Recog/14-15 dated 20.05.2014
2. Letter No.A-1075/2014/CAPE 2164 dated 12.06.2014 from the Director, College of Engineering, Thrikkaripur
3. U.O No.Ac.C3/3572/COE-Thrikkaripur/2012 dated 06.08.2014
4. Minutes of the Meeting of the Syndicate held on 21.05.2015 (Item No.621.11)

ORDER

Vide U.O. read (1), the Recognition granted to College of Engineering, Thrikkaripur for the conduct of B.Tech (IT) branch was withdrawn. Considering the request of the Principal, to re-instate recognition of B.Tech (Information Technology) branch, and the recommendations made by the Inspection Committee, the Vice-Chancellor, invoking Section 11(11) of CUSAT Act, 1986, ordered that the College of Engineering, Thrikkaripur be sanctioned to conduct the B.Tech (IT) programme with intake 30 for the Academic Year 2014-15 subject to ratification by Syndicate. The matter was communicated vide U.O read (3) and was placed before the Syndicate for ratification.

The Syndicate considered the matter along with the recommendations of the Syndicate sub-committee at its meeting held on 21.05.2015 and resolved to ratify the action taken by the Vice-Chancellor in re-instating the B.Tech (Information Technology) branch at the College of Engineering, Thrikkaripur.

Orders are, therefore, issued communicating the resolution of the Syndicate.

Dr. DAVID PETER.S.
REGISTRAR

To

1. The Director, College of Engineering, Thrikkaripur
2. The Joint Director, Local Fund Audit/Finance Officer
3. The Joint Registrar (Academic)/Deputy Registrar (Finance)/Assistant Registrar (Audit-I/Academic)
4. Academic A/Cash/Audit A Sections
5. Day file/Stock file/File copy

sj.6

ANNEXURE E: AUDITED STATEMENT OF ACCOUNTS

CO-OPERATIVE ACADEMY OF PROFFESIONAL EDUCATION
COLLEGE OF ENGINEERING , TRIKARIPUR

BALANCE SHEET AS AT 31ST MARCH 2014

(Amount in Rs)

SL.NO	PARTICULARS	Sch No	As at 31.03.2014	As at 31.03.2013
A	SOURCES OF FUNDS			
	Inter Unit Account	I	(10 24 45 085.49)	(9 10 44 240.49)
	Reserves and surplus	II	11 93 11 722.70	10 11 18 463.13
	Current liabilities and provisions	III	2 01 07 164.00	2 17 77 039.75
	TOTAL		3 69 73 801.21	3 18 51 262.39
B	APPLICATION OF FUNDS			
	Fixed assets	IV		
	Tangible Assets		3 27 12 616.96	3 08 66 286.39
	Intangible Assets			
	Capital work in progress			
	Current asset Loans and advances	V	42 61 184.25	9 84 976.00
	TOTAL		3 69 73 801.21	3 18 51 262.39
	Notes to accounts	2		

As per our report of even date attached

For K VENKATACHALAM AIYER & Co.
Chartered Accountants

CA M G SURESH KUMAR B.Sc FCA DISA(ICA)
Partner | Membership No: 212795

DATE : 19.09.2016

PLACE : KOTTAYAM.

K. VENKATACHALAM AIYER & COMPANY KOTTAYAM CHARTERED ACCOUNTANTS

CO-OPERATIVE ACADEMY OF PROFESSIONAL EDUCATION Thiruvananthapuram

Director
Co-operative Academy of Professional Education
1st FLOOR, CO BANK TOWERS
THIRUVANANTHAPURAM - 695 033

CO-OPERATIVE ACADEMY OF PROFESSIONAL EDUCATION

INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD FROM 01.04.2013 TO 31.03.2014
COLLEGE OF ENGINEERING, TRIKARIPUR

(Amount in Rs)

Particulars	Sch No	For the year ended	
		2014	2013
INCOME			
Tuition fees		4 97 94 000.00	5 13 77 000.00
Special fees		19 94 400.00	20 40 000.00
Admission fees		51 750.00	49 500.00
Application fees		26 900.00	53 536.00
Miscellaneous		26 02 000.00	20 73 609.00
Interest Received		44 655.00	45 562.00
Other Income		1 88 926.75	2 28 196.00
TOTAL		**5 47 02 631.75**	**5 58 67 403.00**
EXPENDITURE			
Operating Expenses	VI	1 37 787.00	1 03 511.00
Personnel expenses	VII	2 92 99 966.00	2 40 04 432.00
Administration Expenses	VIII	13 40 931.75	18 31 111.00
Interest and Finance charges		10 013.00	4 184.00
Depreciation	IV	41 43 307.43	41 76 995.38
TOTAL		**3 49 32 005.18**	**3 01 20 233.38**
Surplus for the year before allocation of expenses		**1 97 70 626.57**	**2 57 47 169.62**
Interest allocation		-	-
CAPE Overhead allocation		15 77 367.00	10 35 373.00
Surplus for the year		**1 81 93 259.57**	**2 47 11 796.62**
Balance surplus transferred to Balance sheet		**1 81 93 259.57**	**2 47 11 796.62**
Notes to accounts	2		

As per our report of even date attached

For K VENKATACHALAM AIYER & Co.
Chartered Accountants

CA M G SURESH KUMAR B.Sc FCA DISA(ICA)
Partner | Membership No: 212795

DATE : 19.09.2016

PLACE : KOTTAYAM

Director
Co-operative Academy of Professional Education
1st FLOOR, CO BANK TOWERS
THIRUVANANTHAPURAM - 695 033