SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

COLLEGE OF ENGINEERING

**COLLEGE OF ENGINEERING TRIKARIPUR, CHEEMENI, KASARAGOD.
671313**

www.cetkr.ac.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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Executive Summary

Introduction:

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. The college has a current capacity to train 270 students every year.

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 ViceChairman. 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 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 four streams; Electronics and Communication Engineering, Electrical and Electronics Engineering, Computer Science and Engineering and Civil Engineering, out of which Electrical and Electronics is NBA accredited. Computer Science and Engineering department has applied for its NBA accreditation and waiting for the inspection. The college is poised for growth in the years to come.

Vision:

The vision of the institution is as follows :

"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. 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.

Mission:

The mission of the institute is stated as below.

● 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.

The multidisciplinary approach relies on ideas crossing disciplines that facilitates knowledge sharing. It enhances the scope and depth of learning. To make our students uniquely skillful, we vie for an infusion of research mindset at the undergraduate level. The outcome is a professional graduate with allround capabilities. Apart from serving the industrial needs, our Institution gives more emphasis on ethical capabilities. Hence, our campus is reputed in delivering multi-talent engineers, willing to contribute both for society and Industry.

SWOC

Institutional Strength :

A Government undertaking institution, where faculty is recruited through the public exams and interviews organised with complete transparency. Student admission strictly follows merit and reservation policy of Government and every decision making is under the purview of RTI Act.

Top position in North Kerala based on KTU ranking and pass percentage of students.

NBA accreditation for EEE department.

Maintains well-equipped state-of-the-art laboratory facilities. Land available for future expansion.

Well connected to nearby towns.

Well established training and placement cell, central library and departmental libraries with beyond campus hour timings.

Play grounds and dedicated physical education trainer

Nature filled active campus with security available 24*7.

Established ASAP and SKDC centres

Hostel facility available for all the required girls.

CERD and KSCSTE research funds.

The college has an illustrious and high-profile alumni occupying top positions in society, politics, culture and administration.

MOUs with higher institutes for conducting Virtual labs. Active MOUs with Industries for teaching the industrial needs.

Remedial classes offered for slow learners.

Students and staff come from all communities and areas that are socially, economically or culturally backward.

Experience in conducting faculty and student oriented programs.

Equipped with various student clubs and facilities for extracurricular activities.

Facilities for competitive online exams.

Membership in various professional bodies like IEEE, ISTE, CSI.

IQAC monitoring the quality of the teaching and research.

Effectively implements curriculum through ICT based interactive practices, tutorial sessions and Institute is registered under NPTEL-SWAYAM active local chapter.

Keeps up well-structured mentoring system to guide, support and motivate students in academic and personal matters.

International and national conferences and workshops were conducted with a view to interact with the eminent resource persons and to inculcate research culture among faculty and students and motivating the students to keep pace with the latest advancements in technology.

Seminars and workshops are conducted with the participation of experts from industry, to bridge the gap between industry and academia.

Industrial training/ visits help the students to supplement theoretical knowledge with practical experience and thereby improving their technical skills.

FACULTY

- Trained from higher institutions like IIT and IIM by attending FDPs, STPs and other training programs.
- PhD from reputed institutes like IIT, NIT, KTU and CUSAT.
- Strong research skilled, PhD guides available for providing a research platform.
- Faculty with internationally reputed ISI journal papers, patents, book authors.
- Young, motivated, energetic, Experienced and dedicated faculty with commitment to quality and ethical values.
- Eight faculty members are Ph.D. holders. Some are pursuing Ph.D.
- Serve as technical members in various local and government bodies and Doctoral committee members of KTU.
- Regularly participate in Seminars, Workshops, FDPs, STTPs and Conferences, which help them, improve research aptitude and teaching skills.

Institutional Weakness :

Geographical location of the institution.

Scope for improvement in number of PhD holders.

Lack of focus in research activities

Campus Functioning is limited from 9am to 4pm.

Lack of PG programs.

Inconsistency of academic calibre of the admitted students.

Scope for improvement in communication skills of students.

Involvement of Alumni in college activities is not satisfactory.

Distant Proximity to Industrial, Trade and Research Centres

Source of fund for campus development is limited.

Lack of Advanced Facilities for the Differently Abled and Transgender Students

Not a Residential Campus

Institute does not have Administrative Autonomy

Institutional Opportunity :

Opportunity to acquire higher qualification for faculty.

Availability of funds from various agencies.

Availability of land

To engage in technical consultancy assignments with industries

Institutional Challenge :

Declining enrolment in engineering globally.

Insufficient availability of the Doctoral faculty.

Though there is a favourable teacher-student ratio, the current staff strength is not adequate for the smooth conduct of the additional functions of an autonomous college.

Difficulty in maintaining the faculty retention as some of the faculty are in contract.

Less number of industry- institution organised events

The students of the college who complete programmes on fundamental or basic branches of knowledge find it difficult to get a placement matching their qualification as markets are not generating knowledge intensive jobs

Equipping students for better placement opportunities

Declining quality of students seeking admission in engineering

Emergence of local private colleges with attractive fees structure.

Criteria wise Summary

Curricular Aspects :

The curriculum is designed by Kerala Technological University by taking cognizance of the educational policies of the State and Central Government, and the global needs, while serving the cause of national development and regional requirements. The syllabus is dynamic and is constantly revamped to keep pace with the rapid developments in various fields of study, scientific and technological advancements, and to meet the demands of academia, industry and society. University invites faculty for discussion and formalizing the curriculum. Senior Faculty of our institution participate in those discussions through mail and cast their opinions. University evaluates the needs and comes up with updated syllabus. University also provides us with a calendar that has to be followed. Our institute strictly adheres to the institute's calendar and is being monitored by various committees. Based on the Program Outcomes (POs), Program Specific Outcomes (PSOs) are set by the department and will be further scrutinized and modified based on the inputs from the departmental advisory boards. Further the individual faculty designs their Course Outcomes (COs), which would be verified by the departmental IQAC and advisory board members. Further the quality of the implementation is being strictly monitored by Institutions IQAC. Based on the advice of the IQAC, implementation methods to accommodate the devised strategies are set and monitored by IQAC. The Choice Based Credit System provides flexibility by offering intra-departmental and interdepartmental elective courses and MINOR courses. A wide range of elective and open elective courses are available under each program. Curriculum of every program offers a combination of core courses (60-70%), elective courses (15-20 %) and skill enhancement courses and choice based open elective courses (15- 20 %). Credit Transfer facility at intra and inter-school, from other institutes and SWAYAM/NPTEL /MOOCs is made available to the students. During the final year, students are supposed to submit a Project thesis. Our institution promotes interdisciplinary topics. Active Industrial MOU partners play a major role in finalising the topic of the student projects. Once finalised, the guides are responsible for submitting the ideas for seed fundings to various government agencies.

Teaching-learning and Evaluation :

The college puts a lot of emphasis on active and interactive learning. Teaching-learning is made student-centric by giving our students every opportunity for independent as well as collaborative learning. College faculty follows methodologies such as discussions, debates, laboratory experiments, learning mini-projects and case studies. In certain cases, faculty used to assign group projects for Collaborative Learning, organize problem solving quiz sessions, Creating interactive sessions in the classroom through discussion, debates, role play, quizzes, and tutorials to attain Participative Learning. Screenings of movies, discussions on books, and games are done through corresponding clubs for Experiential Learning. The college has great concern for differently abled students. The faculty, library staff and other allies have been made aware of and are sensitized to the needs of these students. Necessary arrangements and assistance are made available to them during examinations. The building is equipped with specially designed rest rooms, wider doors to accommodate wheelchairs to facilitate the differently-abled students. The college has always followed a student-friendly policy and the faculty has been mentoring students in an informal way.

Remedial teaching is organized every semester after carefully analyzing the student's performance in the tests conducted and diagnosing the areas of difficulty. Once the difficult areas are identified the next task is to plan the learning experience as to teach the basics to understand the given topic. The departments also facilitate personal counseling to cater the emotional, academic and behavioural problems of the slow learners. For Advanced learners, the Institution provides additional learning materials such as books & reviews. Each department inspires students to participate in quiz competitions, debate competition, problem

solving and other decision-making exercises. Institution also provides various web-based materials. Faculty indulge in conducting special classes that cover beyond the syllabus too.

Research, Innovations and Extension :

Our institution has a clearly defined policy over research. We understand the essentialities of a research cultured campus and we improvise our strategies on yearly basis towards achieving a complete research oriented institution. We have developed an improved research eco system that facilitates faculty and also the students to undertake research activity. Institution has signed many MoUs in conjunction with this. As per our policy, we used to support the students and faculty financially during the paper presentations etc. Also the Institution has a system to identify the best idea among the final year projects to support financially and motivate them with accomplishing certificates. As a result, a rise in the number of journals/papers published and patenting is increasing. Also, student level project funding has also increased. Even though we have witnessed a good change in the statistics of research activities, we understand that the campus needs to push itself to achieve more. By keep this in our mind, we have developed few policies to promote research aggressively. To achieve this, we are planning to arrange more workshops, research based programs with the help of accomplished researchers from IITs, NITs and industries.

Infrastructure and Learning Resources :

To fulfill the changing demand of the modern academic era and to promote the effective teaching-learning process, college has always given emphasis on the creation and up-gradation of infrastructures. To create new infrastructure, the college utilizes the funds provided by the State Government and TEQIP. The funds are expended to renovate the college buildings, class-rooms, laboratories, library, time to time, wherever required. The college is taking effective measures for modernizing the way of teaching. For that purpose, ICT enabled teaching-learning has been introduced in almost all the departments. Digitally equipped seminar rooms have been prepared in all departments with LCD projectors and laptops. Every department is provided with internet connection for teachers and students. Every department has a unique project lab with most of the essential equipment and platform to enable the students to complete their projects within the campus itself. Our Institution has a well-equipped auditorium and each department has ICT enabled seminar rooms. Our college has tutorial rooms also in all the departments.

In order to cater the needs of the students, we have a good play ground with most of the modern facilities. We have a dedicated system to take care of the co-curricular and extra-curricular activities. The College has a student's NSS wing which is engaged in organizing most of the extension activities of the college such as different awareness programmes, cleaning programmes and other social services. Institution supports them by providing all the financial needs and necessary hardwares to carry out the social activity.

Student Support and Progression :

The Institution makes sustained efforts for academic excellence of students. The activities are published in the university brochure, college magazines and on the website. These activities are categorized as curricular, co-curricular and extra-curricular. Training and placement cell, competitive examination center, alumni cell, etc., provide support for skill development, career counseling for further education, competitive exams, progression, placement and entrepreneurship activities of students. Students are informed about scholarships through prospectus and circulars and students are benefited by such scholarships. Student progression and placement is reviewed annually. Students are encouraged to participate in various cultural and sports activities at university level, state, national and International level by providing financial assistance. We have a transparent mechanism for timely redressal of stress-related issues, student grievances including sexual harassment and ragging cases through Counseling Centre, Students' Welfare committee, Internal Complaint Committee, Ragging Prevention Committee and Grievance Redressal Cell. Students benefited from various university schemes and government research SEED fundings. Majority of students have received Central and

State Government scholarships. A good number of students pursue higher studies in the university and in other reputed institutions. The placement record of students is satisfactory and growing. The Institute is committed to nurture leadership qualities of students by involving in various activities. Institute gives equal emphasis on social empathy. Good number of students are involved in social awareness activities.

Governance, Leadership and Management :

The management takes every effort to ensure that its policies, programs, governance and leadership manifest the guiding principles portrayed in the vision and mission of the College. This has led to the formation of unique characteristics of the College such as comprehensive education, ethical and value based orientation, insemination of social responsibility and leadership in students, empowerment of rural students which are all bound up together in the ideology of Inclusive Development. The quality policy and plans are decided at the BOARD meetings consisting of Director, Principal, Eminent faculty from IIT and Industrialist. Inputs from all stakeholders are collected before putting policies and plans into place and creating support systems and structures. This brings about the management's democratic and participative leadership style. Departmental advisory board with the guidance of the head of departments plays a monitory and advisory role in the functioning of each department. Interaction with all concerned parties such as students, parents, faculty and staff, alumni and society are set in place by two way communications. Various councils and committees are constituted for the monitoring, evaluation and enhancement of policies. The management is committed to grooming leadership at various levels by empowerment of faculty through initiatives such as clubs and associations, refresher courses and knowledge building activities. Institution has laid a good democratic electoral platform for students in selecting their various council members and class level representatives. Staff members are always highly motivated to participate and publish papers in seminars, conferences and workshops. The quality policy of the College is developed by the members of the management ably supported by the IQAC, HODs and members of the alumni. The IQAC team meets every month to discuss the forthcoming activities. The decisions taken in the meeting are communicated to faculty, after consultation with the Principal, through circulars and mails. Feedback is taken from students at the end of every semester on academic related issues. Exit feedback and infra-structure feedback are also collected and measures are taken to improve the system, time and then.

Institutional Values and Best Practices :

The institution vision and mission are achieved by "CET Attitude of Learning (CAL)", an inclusion of activities and engagements involving students, faculty and community. Students are introduced to concepts and theoretical framework through projects, case methods, lectures, debates etc. Students are moulded into complete individuals by inculcation of key skills like communication, analytical skills etc. through various training programmes. CAL ensures transformation of students to industry-ready, socially sensitive and complete individuals. Women's Forum was established in College of Engineering Trikaripur as a platform for women to express their views and recognise their strengths. Institution has taken various measures for the promotion of gender equity. International day for the Elimination of Violence against Women was observed on 25/11/2020 by the NSS unit. Various national and international days are observed in the campus in association with the NSS unit. College union celebrates Onam, Christmas and Fresher's Day in the campus by incorporating students and staff from all communities and sectors. Onam is a special event in Kerala, that remarks the socio-economic equality among the people. As a measure of energy conservation, all the damaged fluorescent lamps and sodium vapor lamps in the college campus are replaced with LED lamps. A well-built separate area is provided in the campus for waste management system. An insinuator is provided with in the shed to burn sanitary napkins etc. Degradable bio wastes are collected in a well- protected compartment to avoid pests. The waste collected are disposed with the help of health department and Panchayath authorities. A rain harvesting pit was constructed near the play ground to collect the rain water to improve ground water level. We have a Green, Plastic free campus with more than 500 trees. Energy auditing and green auditing were also conducted. Campus has built environment with ramps for easy access to class rooms and disabled friendly wash rooms are also provided. Well structured training programmes are conducted to improve the soft skills and communication ability of the students apart from curriculum under the banners of Career Guidance and Placement Cell (CGPC) and Skill and Knowledge Development Centre

(SKDC). Lack of proper training to appear for the competitive examinations is one of the main reasons for the poor performance of students from rural areas. They are actually deprived from the costly coaching due to financial and social issues. The prime objective of the programme is the uplift of the meritorious students from low income backgrounds so as to ensure social justice. As a part of social responsibility, blood donation camps, hair donation camps and cleaning activities are also conducted. Our institute has concentrated on developing not only industry ready highly skilled engineering graduates, but also socially responsible and empathetic ones.

Profile

BASIC INFORMATION

Name and Address of the College	
Name	COLLEGE OF ENGINEERING
Address	College of Engineering Trikaripur, Cheemeni, Kasaragod.
City	Kasaragod
State	Kerala
Pin	671313
Website	www.cetkr.ac.in

Contacts for Communication

Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal(in-charge)	Vinod Pottakulath	04672-250377	8289890377	-	tkrcape@gmail.com
Associate Professor	Naveena A.K	04672-2250977	9446440518	-	naveenaak@gmail.com

Status of the Institution

Institution Status	Grant-in-aid

Type of Institution

By Gender	Co-education

By Shift	Regular

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details

State	University name	Document
Kerala	A.P.J. Abdul Kalam Technological University	View Document

Details of UGC recognition		

Under Section	Date	View Document
2f of UGC		
12B of UGC		

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

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	02-06-2022	12	

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

Location and Area of Campus				

Campus Type	Address	Location *	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	College of Engineering Trikaripur, Cheemeni, Kasaragod.	Rural	25.66	16400

ACADEMIC INFORMATION

Details of Programs Offered by the College (Give Data for Current Academic year)

Program Level	Name of Program/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Computer Science And Engineering	48	Plus Two	English	103	101
UG	BE,Civil Engineering	48	Plus Two	English	68	37
UG	BE,Electronics And Communication Engineering	48	Plus Two	English	68	59
UG	BE,Electrical And Electronics Engineering	48	Plus Two	English	65	18

Position Details of Faculty & Staff in the College

Teaching Faculty

	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0				0				0
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit				0				0				0
Sanctioned by the Management/Society or Other Authorized Bodies				5				9				40
Recruited	0	0	0	0	3	1	0	4	18	22	0	40
Yet to Recruit				5				5				0

Non-Teaching Staff

	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				22
Recruited	8	14	0	22
Yet to Recruit				0

Technical Staff

	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other				25

Authorized Bodies				
Recruited	12	8	0	20
Yet to Recruit				5

Qualification Details of the Teaching Staff

Permanent Teachers									
Highest Qualification	Professor			Associate Professor			Assistant Professor		
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	3	1	0	1	1	0	6
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	13	10	0	23
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers									
Highest Qualification	Professor			Associate Professor			Assistant Professor		
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	2	0	2
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	4	19	0	23
UG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers									
Highest Qualification	Professor			Associate Professor			Assistant Professor		
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male	Female	Others	Total
	1	0	0	1

Provide the Following Details of Students Enrolled in the College During the Current Academic Year					
Program	From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG Male	97	0	11	0	108

Female	130	0	1	0	131
Others	0	0	0	0	0

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

Category		Year 1	Year 2	Year 3	Year 4
SC	Male	2	3	2	4
	Female	1	0	6	2
	Others	0	0	0	0
ST	Male	0	0	1	0
	Female	1	0	1	0
	Others	0	0	0	0
OBC	Male	31	35	42	45
	Female	45	43	39	36
	Others	0	0	0	0
General	Male	50	39	66	75
	Female	45	48	58	48
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		175	168	215	210

Provide the Following Details

Number of Programs	Self-financed Programs offered	New Programs introduced during the last five years
	0	0

Provide the Following Details

Unit Cost of Education	Including Salary Component	Excluding Salary Component
0	64187.28	6612.86

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 programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)

Departments	UG	PG	Research
Electronics And Communication Engineering			

Electrical And Electronics Engineering			
Computer Science And Engineering			
Civil Engineering			

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	A. Multidisciplinary/interdisciplinary Approaches of the University The College of Engineering Trikaripur is affiliated to A.P.J Abdul Kalam Technological University. The curriculum for the university is updated in 2019 and the multidisciplinary aspect is more vigorously implemented than before. The revised curriculum includes the Basic Science courses, Engineering Science courses, Humanities and social science including management courses, mandatory non-credit courses in addition to core engineering subjects in each branch. These colleges would be able to conduct several vocational courses in association with Additional Skill Acquisition Programme (ASAP). Students can opt for multidisciplinary vocational courses in the middle of their B.Tech course and then complete their engineering degree as well. The vocational courses are designed in accordance with the specifications in the National Skills Qualification Framework(NSQF) and hence satisfies the requirement of the multidisciplinary needs. Moreover, in 2019 scheme university introduced minor and honor courses which are multidisciplinary in nature. Minor courses allow students to earn additional 20 credits and B.Tech certificate will be Bachelor of Technology in branch with Minor in specialization. These courses allow one to gain interdisciplinary experience and exposure to concepts and perspective not in a major degree. The college offers minor courses in all departments. Also, the new syllabus includes the courses 1) Sustainable Engineering 2) Professional Ethics 3) Constitution of India like humanities subjects for all branches of Engineering. Hence the students can achieve a holistic and multidisciplinary education. B. Multidisciplinary/interdisciplinary Approaches of the Institution Our Institution has made a concise effort to promote the research culture among the faculty and students. This is evident from the defined vision of the institute, which states the following, "To be a premier institution in education and research for moulding technically competent and socially committed professional". Research as such is a multi-disciplinary tool and hence the improvisation of the

	vision is to infuse the multi-disciplinary approach among the participants. The institution in conjunction with the University has improved the flexibility in selection of courses. Global electives are being offered and the criteria for selection of subjects is based on the requirements and willingness of the students. The subjects offered under global electives are social oriented. To name a few, following are some of the subjects which we offer: Disaster management, environmental assessment, operations research, energy conservation management. All these are credit based subjects. Also, it can be observed that global electives have a direct social impact on the students and can significantly help in building the society. Also, the students have to do project design in the sixth semester and Project in last year. The department allows the students to select multidisciplinary projects. The project committee has faculty members from other departments to facilitate these needs. The students of College of Engineering participate in the STEM outreach programme organized by IEEE Pune section for the last three years and the awareness of technology in the field of agriculture and other areas are explained to the students of Higher Secondary students.
2. Academic bank of credits (ABC):	To improve the students centric approach, APJ Abdul Kalam Technological University has introduced a credit transfer system in 2019. The board of governors of KTU has also proposed to make suitable changes in the B.Tech. course for credit transfer. Using this facility, the current engineering students have the facility to pursue non-engineering courses offered by other universities. Our college is registered with the National Academic Depository(NAD) and is affiliated to A.P.J Abdul Kalam Technological University. We have an online students portal in which the course details of the students are stored. Results are also published and stored in this digital portal. Our Institute appoints faculty advisors for every student and they can access and monitor the credits earned by the student at any time. The College of Engineering Trikaripur is registered and has an active Local chapter of NPTEL-SWAYAM. Our students actively participate in NPTEL-SWAYAM courses offered by the IIT. Credits earned can be transferred and it will be added with credit earned for the honour courses and will be reflected in the student's portal. The college has a well established Campus Management System(CMS). All faculty, staff and students are registered in the CMS. The faculty can upload the teaching materials and the marks of assignment and internal examination in the CMS. Our Institution has initiated the process of collaboration with International institutes that allows the students to

participate in various international courses offered by higher Institutes. The institution has taken many steps towards achieving this. One such effort was when the eminent faculty from the Education sector of Malaysia interacted with our faculty members and students. The institution has initiated the steps for collaborating with SEGI university of Malaysia. Dr. Madhubala Bava Harji visited our institution in this regard and had various sessions of interactions with our Institutional team. The effort for collaboration is under process and by the end of 2023, we expect the institution to have foreign institutional support for shaping the careers of our students. Our institution has an official MOU signed with a nearby institution (College of engineering Thalaserry) for exchange of technical support including sharing of laboratory facilities to students and knowledge sharing among faculty members. This broadens the student's choice to participate in various other courses that are being offered in neighbouring institutes. Even though the university provides us with the syllabus that to be taught, our faculty indulge in various pedagogical improvisations. We have implemented peer to peer learning methods, virtual learning methods, group discussions, quizzes, interactive visualization hours through smart monitors and also by group seminars. The faculty also invite industrial experts to handle a few sessions to give the extra dimension in learning. Institution also facilitates nearby industry one day visits that enable the faculty to demonstrate their lecturing more practically.

3. Skill development:	Soft Skill Development Soft Skills training gives a comprehensive understanding of the true perspective of application of skills as expected at the present work scenario. Therefore, examples, case studies, and exercises are tailor-made to suit the needs of students of our college. To improve their soft skill, students can make use of this training to understand the essentials of language skills. Understanding Different Speech Sounds, Learning Pronunciation, Speaking Without Errors, Building Conversations, Understanding Non-verbal Communication, Formal and Informal Communication, the right Etiquette for Public Speaking and Business Presentations, Personality Development and Building Self-Esteem, Team Building and Group Discussion, Facing Different Types of Interviews with Confidence and Preparing for and Delivering Successful Business Presentations are some areas students become familiar with. All these are done and executed through credit and non-credit system using the language lab. Hard Skill Development The Placement Cell of our Institute continuously monitors and evaluates the current requirements of the Industries. Based on the requirement, the cell

organises several department specific programs to increase their hard skills. In certain cases as per the demand and the requirements of the visiting companies, they prepare our students with software packages. We take the skill development sessions very seriously and hence the institute has an official ADDITONAL SKILL ACQUISITION PROGRAMME (ASAP) section. ASAP is a Kerala Government inducted program and the government has authorized and funded us to develop a full-fledged lab inside our premises. We are conducting various job oriented courses by utilizing the ASAP lab facilitty. The college has a Skill and Knowledge Development Centre(SKDC) unit to conduct the various training programmes. Skill and Knowledge Development Centre(SKDC) is a new venture in the field of Professional Education. SKDC offers training and consultancy services to corporate and organizations. It has successfully provided training programme for the elected representatives of Grama Panchayath in Kerala. The SKDC also conducted two programmes for the students. One on Electric vehicles and another on electric system design. Some of the final year students benefited directly by participating in these programmes, eventually resulting in placements of few students. In Order to motivate and orient the students to participate in these hard and soft skill programs, we conduct an induction programme for the first year students. In this program along with the regular drills, we used to have special sessions through industrialist and college alumni to orient the freshers towards the industrial requirements. At the end of the sessions, students understand the importance of these training programs and will be geared up to participate in the following years. Other Skills Our Institution has a professional counsellor, who interacts with the students to de-stress them and also to add up values in their approach. Institute has incubation cells at the department level and an IEDC cell coordinates the overall activities. The industrial MOUs help us in organizing programs to promote entrepreneurial activities. Apart from these, the institution has a recognized IEEE and ISTE student chapter, which conducts yearly programs to enrich the students with additional skills.

4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	Online repository of Classes During the lockdown period in connection with COVID19 pandemic, many faculty developed a habit of making the video lectures in online repository. This immensely helps the students to revisit the concepts that couldn't be understood in class rooms. Also the institution promotes MOOC courses that are conducted by higher institutes like IIT. Many students and faculty are participating in NPTEL conducted courses and are getting certificates for it. Moreover, the institution takes help from premium Institutes

through the virtual labs. Infact, our Institution have signed various MouS with few higher institutes to utilize the virtual labs. Steps to Protect Indian languages and culture Technical Group Discussions are held occasionally in the department and the medium of the language used is malayalam. This not only helps in triggering the thought process of the students, but also make them to concisely think technical terminologies in their mother tongue. Every year we conduct writing and speech competitions in various languages to promote the usage of traditional languages like Malayaam and Hindi. To protect the Indian culture and traditions, we organise various cultural events yearly. Students learn and perform the oldest traditional arts like Kuchupudi, Chenda melam, Kathak etc. The institution provides the window for learning old traditional arts and also motivates students to flourish in it by conducting prize events. Our college conducts Yoga training and celebrates Yoga day every year with participation from staff and students. Even though the mode of teaching heavily relies on English (as per University direction), our faculty repeats the concepts in mother tongue (Malayalam) as well. In addition to the technical books, the college library has a good collection of Malayalam books.

| 5. Focus on Outcome based education (OBE): | Outcome-Based Education is a student-centered learning model that helps teachers to plan the course delivery and assessment with the end point in mind which has been implemented to attribute the various outcomes like program specific outcome and course outcome, it remains the base and tools used to measure the student performance .It mainly requires the active participation of teachers in the departments ,since it needs to develop effective teaching and assessment methods which helps to capture both the learning and performance of the learners. After that the attainment of CO should be measured and it has to be mapped with the blooms taxonomy.The Institution ensures that Program outcomes, Program specific outcomes and course outcomes of all the programs are clearly stated in many places, that include the test question papers. Moreover, the evaluation of assignment and internal examination is based on course outcome. The attainment level of each course is finalized in the department meeting. A good practice followed by the institution is, college analyses the outcome of students after each internal examination and remedial classes are arranged for all the students whose attainment is below the target. Measures are taken at various levels to ensure that the faculty and the students are made aware of the outcomes. Every department has an advisory board and regular meetings are held to monitor the outcomes and also to devise new |

	strategies, if required. Inshort, the entire outcome is being monitored and evaluated continuously and rigorously. It is to be noted that, our faculty are trained in Outcome Based Education by the Teaching Learning Centre, IIT Madras. The college conducted a programme on Examination Reforms for OBE in January 2019. NBA defined Programme outcome for the B.Tech Programme. All departments defined Programme Specific Outcome(PSO) which are specific for that particular programme. Programme Outcome, PEO and PSO are displayed in all departments. In the revised 2019 curriculum the university defined Course outcome for all the courses. The faculties explain about the course outcome to the students at the beginning of each semester while introducing the course. The college includes the course outcome in all internal evaluation question papers. The evaluation of assignment and internal examination is based on course outcome. The attainment level of each course is finalized in the department meeting. A good practice followed by the institution is, college analyses the outcome of students after each internal examination and remedial classes are arranged for all the students whose attainment is below the target.
6. Distance education/online education:	All the classrooms are smart classrooms with projector and screen and our faculty deliver their lectures through the ICT enabled devices. Faculty indulge in delivering online lectures and study material through different online tools frequently. The college has a Campus Management System (CMS). All the faculty and students are registered in the CMS. Faculty upload the study materials in CMS. Some of the faculty have youtube channels to upload the video lectures which are accessible to the students inside the campus as well as the public. Google classroom is another online facility used by our faculty. A number of courses are loaded in the moodle, https://cetkrcourses.gnomio.com/. Students are encouraged to take up their assignments using the CMS and also to submit online. During the lockdown, we successfully conducted online tests using our CMS. Institution has a fully furnished "Additional Skill Acquisition Program (ASAP) " set up by Govt. of Kerala. ASAP conducts many vocational programs that are offered offline and also through online. Few students and alumni of our campus have registered for various vocational courses in this lab. The Institution actively participates with government trainers to conduct the program. Few faculty are getting trained on the selected topics. Our Institution has official tie-ups with a few higher institutes like NIT Surathkal to perform Virtual labs online. Students are formed into many batches and take up these experiments online. At the end of these sessions, students

| | generate reports based on their findings and submit their reports to the respective departments. |

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	Yes, under the guidelines of Election Commission of India, our institution has set up an Electoral Literacy Club. ELC is the initiative under Systematic Voter's Education and Electoral Participation, which is mainly focused on voter's awareness, information sharing and motivating them to cast their votes. ELC is working under the NSS unit of the Institution. As part of it, NSS unit conducts yearly programs to motivate the students to enrol in the voter's list. ELC has also conducted a workshop to link the Aadhar with the voter's identity card.
2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	The composition of institutional ELC is as follows. Sl. No Name Designation Functional Role 1. Mr. Binesh Mohan P Assistant Professor, NSS coordinator ELC Coordinator 2. Ms. Jyothi K Assistant professor ELC Asst. coordinator 3 Ms. Anagha R Student S5 CSE Student Representative 4 Mr. Vinayak S5 EEE Student Representative
3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.	i) As part of the NSS camp the members of the ELC visited the people in the village nearby the NSS camp, Govt. L.P. School Puliyannoor and home campaign is done to educate the public about the importance of casting vote in the election. ii) During the campaign the students organised role plays and street plays to catch the attention of the villagers. iii) One of the street play addressed ethical voting as its theme. iv) A special program was organised in the college through which the students enrolled in the voter's list. v) A special program was organised in the college to link the Aadhar with the voter's list.
4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.	I) NSS camps organise periodical awareness drives in nearby villages in the form of street play and role plays. They organised a street play on the ethical voting and other social issues which highlights the importance of proper voting. 2) An awareness programme was conducted during the NSS camp to NSS volunteer and the public by Mr. Ajith A.O., District level master trainer, Kasaragod Dist. 3) Volunteers of the ELC conduct surveys and helps in collecting the data related to voters' list with the help of local self government.
5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to	Since ELC conducts periodical programs to guide the first year students to enroll in the voter's list, there no one who haven't registered as per the data available.

institutionalize mechanisms to register eligible students as voters.	

QIF

1.Curricular Aspects
1.1 Curricular Planning and Implementation
1.1.1 The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

Answer:

The college regards effective delivery of curriculum as the most vital curricular aspect. The college follows the curriculum prescribed by the University. Our Institution has board of governance and IQAC which strictly monitors and evaluates the effectiveness of the curriculum delivery. Each department has advisory committees, class committees and course committees. All these functions collectively work towards attaining the college vision, thereby ensuring an effective curriculum delivery through systematic and strategic planning.

Department **Advisory board** is responsible for devising the department level strategy to implement and accomplish the goals set by University and Institution. They devise and revise the strategies every year. Advisory board constitutes of all the senior faculty of the department, a Professor from other institution, an industrialist, Parents, few students, one senior faculty from other department and Institution's IQAC. It also helps in developing the DQAC (Department Quality Assurance centre) and framing the Scrutinee committee.

The college follows the **Academic calendar** issued by the University and executes it rigorously. • The Heads of Departments conducts the meetings to distribute workload, allot subjects, plan the activities of the department and the departments advisory board reviews the completed syllabus. • The Principal monitors the effective implementation of the Calendar through formal meetings with Heads of Departments.

• **Teaching plan** is prepared by every faculty member at the beginning of academic year. • They record the conduct of teaching and practical in the diary. • Periodic assessment of curriculum delivery is conducted by DQAC and Advisory boards through HODs.

• There is optimum utilization of well-equipped laboratories for curriculum delivery of practical. • The students maintain the practical records and the results are certified by the faculty along with HOD.

• The faculty uses charts, maps, models and specimens along with chalk and board. • Methods like seminar, group discussion, quiz, case study for effective delivery of curriculum. • Study materials, notes and question banks are provided in the class and through CMS. Each class have a social media groups governed by the tutors, in which the additional materials are shared. • Educational field visits, industrial visits, tours are organized. • Group projects are assigned to teach them team spirit, sharing and develop presentation, research skills. ICT based materials are uploaded on the college website. • Internet, Computer, LCD projectors and other Audio- visual aids are utilized on regular basis.

• Each Department maintains a **Department Library** to facilitate the students to access to latest books available in concerned subjects and topics. • The record of the same is maintained in Department Library and Issue register maintained by all the Departments. Final year students submit their thesis and seminar reports to the department library, so that juniors can refer them in future.

• The college encourages the faculty to participate in many development programs and Orientation courses to update their knowledge of subject. Faculty are provided leaves and financial assistance for attending these programs organised by higher institutes. • The college takes initiative and encourages staff to attend workshops organised by the University for effectively imparting curriculum

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

1.2 Academic Flexibility
1.2.1 Number of Add on /Certificate/Value added programs offered during the last five years

Answer: 49

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

1.2.2 Percentage of students enrolled in Certificate/ Add-on/Value added programs as against the total number of students during the last five years

Answer: 45.17

1.2.2.1 **Number of students enrolled in subject related Certificate/ Add-on/Value added programs year wise during last five years**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
456	415	378	258	248

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

1.3 Curriculum Enrichment
1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Answer:

In order to integrate the cross-cutting issues relevant to professional ethics, gender, human values and environment and sustainability, different types of subsidiary courses are added in the curriculum. The aim of these courses is to develop the awareness about cross cutting issues mentioned above. The courses mentioned below included in the curriculum for attaining this.

Environment and sustainability

MCN201-SUSTAINABLE ENGINEERING: Objective of this course is to inculcate in students an awareness of environmental issues and the global initiatives towards attaining sustainability.

MCN 301- DISASTER MANAGEMENT: The objective of this course is to introduce the fundamental concepts of hazards and disaster management.

CE371 ENVIRONMENT AND POLLUTION: This course is intended to understand the various types of environmental and industrial pollution, pollutants, related diseases and their causes and to impart the

various management techniques available for pollution abatement.

CE374AIR QUALITY MANAGEMENT: This course is intended to understand the various forms of air pollutants and their effects on human and environment and to know the various methods of controlling air pollutants.

CE405ENVIRONMENTAL ENGINEERING- I: This course is intended to understand significance of water resources and the factors affecting the quality and quantity of water and to study the various types of treatment techniques adopted for a public water supply system.

CE402ENVIRONMENTAL ENGINEERING – II: The students will have an understanding of the various types of treatment methods for wastewater and also know the design aspects of various treatment units in a wastewater treatment plant.

CE469ENVIRONMENTAL IMPACT ASSESSMENT : This course is intended to understand various types of environmental pollution and to make aware the impact due to various types of pollutants and their assessment technique.

CET383ECO-FRIENDLY TRANSPORTATION SYSTEMS : This course is intended toanalyse Transportation network for eco-friendliness and quantify the levels and to Design eco-friendly transportation systemsand also to Apply concepts of sustainability in developing green fuels and vehicles.

EE367 New and Renewable Energy Systems : To give sufficient knowledge about the promising new and renewable sources of energy

Apart from the courses mentioned above the institute takes keen measures to implement environment preservation activities in order to keep our campus green and clean. The two active NSS units in our college observes World Environment Day by planting trees in the campus, perform regular cleaning as a part of Green Campus Campaign. They also perform cleaning activities a part of Swach Bharath Pakwada and Swach hi Seva campaigns.

Professional ethics and Human values

HUT 200-Professional Ethics: To enable students to create awareness on ethics and human values.

MCN 202- CONSTITUTION OF INDIA: The study of their own country constitution and studying the importance environment as well as understanding their own human rights help the students to concentrate on their day to day discipline.

HUT 310-Management for Engineers: This course is intended to help the students to learn the basic concepts and functions of management and its role in the performance of an organization and to understand various decision-making approaches available for managers to achieve excellence.

We maintain Women Forum and Internal Compliance Committee as a measure to ensure women safety and handle any sort of harassment against women.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

1.3.2 Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)

Answer: 48.28

1.3.2.1 **Number of students undertaking project work/field work / internships**

Answer: 394

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

1.4 Feedback System
1.4.1 Institution obtains feedback on the academic performance and ambience of the institution from various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website (Yes or No)

Answer: Yes

File Description	Document
Upload supporting document	View Document

2.Teaching-learning and Evaluation
2.1 Student Enrollment and Profile
2.1.1 Enrolment percentage

Answer: 70.44

2.1.1.1 **Number of students admitted year wise during last five years**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
210	215	168	175	183

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
270	270	270	270	270

File Description	Document

| Upload supporting document | View Document |
| Institutional data in the prescribed format | View Document |

2.1.2 Percentage of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (Exclusive of supernumerary seats)

Answer: 79.26

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
87	91	81	80	89

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
108	108	108	108	108

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

2.2 Student Teacher Ratio
2.2.1 Student – Full time Teacher Ratio
(Data for the latest completed academic year)

Answer: 15.4

2.3 Teaching- Learning Process
2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences using ICT tools

Answer:

For enhancing learning experiences our faculty members utilize many strategic methods like lecture, interactive, project and field work, peer to peer learning, computer-assisted, experimental etc. Teaching and learning activities are made effective by these practices. Many teachers use the PPTs and some use interactive Televisions to visualise the 3D models. This improves the understanding level of the students. The methods followed in our Institute are:

Project methods: The project work stimulate student's interest on the subject and provide opportunities of freedom of thoughts and free exchange of different views. In certain subjects, the faculty create groups and assign topics. Students work on the topics for few weeks and create thermocoal models and with help of PPT they disseminate the same. Some create computer programs and discuss the simulation works in the class. Finally the groups submit their reports in hard copy, which will be reatined by the faculty for further evaluation.

ICT Enabled Teaching: All the class rooms and seminar halls are Wi-Fi enabled with LCD projectors. The institution adopts modern pedagogy to enhance teaching-learning process. Institution has essential equipments to support the faculty and students. Certain departments have HDTVs making the classes highly interactive. The faculty utilizes all the potentials of smart classrooms (PPTs, moodle, google class room, virtual laboratories etc) for effective teaching. Institute developed a moodle portal (namely **cetkrcourses**) provided by *gnomio* where faculty members upload course materials and students can access the study materials/assignments/class-test provided by the faculty. This portal greatly supported the students' studies and helped the faculty to asses students' performance during the Covid 19 pandemic. The College Management System (CMS) upgraded with online class conducting facility and online evaluation. Apart from this, faculties use NPTEL NME-ICT lectures or e-learning resources to enhance the teaching learning process. Also, faculties provide information about possible sources of knowledge to students.

Virtual Labs

Institute signed an EOI with NIT Karnataka,Surathkal for Virtual lab which helped us to conduct lab courses during covid 19 pandemic. Later, the system **effectively** used by faculty/students to conduct experiments even beyond the syllabus.

Industrial Interaction

Institute has many active MoUs. Online and off-line interactive sessions, and hands on workshops by eminent industrialist and entrepreneurs are organised in department/ Institute level for students/faculty. This meets industrial needs and updation of the subjects.

Summer Internship Program:

Through Internship programs, students undergo intense practical training that bridges the industry-institute gap.

Beyond The syllabus

This covers the current trends and requirements that are not included in syllabus. Students collect the information, which are beyond the syllabus, from library or internet, and discuss it in class rooms. Faculty provide assignments and youtube materials that covers important technical aspects that are not included in the syllabus.

PEER to PEER Learning

It is mainly focused on slow learners especially in problematic subjects. Identify them and formed different groups with group leaders who are given certain task related to problem solving. Methods to solve the problems are discussed at macro level, and surprise test is conducted to evaluate the effectiveness.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

2.4 Teacher Profile and Quality
2.4.1 Percentage of full-time teachers against sanctioned posts during the last five years

Answer: 100

2.4.1.1 Number of Sanctioned posts / required positions for teaching staff/ full time teachers year wise during the last five years:

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
53	53	53	53	53

File Description	Document
Upload supporting document	View Document

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

Answer: 18.11

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
11	11	11	8	7

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

2.5 Evaluation Process and Reforms
2.5.1 Mechanism of internal/ external assessment is transparent and the grievance redressal system is time- bound and efficient

Answer:

The institute performs the student evaluation process based on the regulations suggested by the University. Typically, internal assessment is based on assignments and sessional tests. For each course, there will be a minimum of two assignments and two sessional tests. The question paper set by respective faculty member is scrutinized by question paper scrutiny committee. The evaluation of these assignments and tests are done by respective faculty members.

The summary and split-up of internal assessment marks are displayed on the notice board of respective departments. The marks are presented to the parents in class PTA meeting by one of the senior faculties.

We also follow the timely publication of internal assessment through college management software (CMS). Students, parents, tutors, HODs can view these assessments. Thus the internal assessment become more transparent.

External assessment of each course is carried out by end semester examination conducted by University. The question paper is downloaded at the time of examination with the presence of an

Observer appointed by university exclusively for that day. Further, the Observer examines the entire process of conducting examinations.

End semester examiation for Lab courses are conduted by the External examiner deputed by University.

Reforms in the evaluation process at the college level is now on at its full pace. 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 a unique set of rubrics also for assessing individual PO. According to KTU 2019 syllabus, CO of each subject and the mapping of PO is defined. CO will be clearly discussed with the students in the first day class of each subject. Also, our question paper, syllabus of each subjects, assignments are CO based.

Effiicient and Time-bound Grievance redressal system

The institute's grievance redressal system is for the students and faculty. A decentralized functioning is being successfully practiced in the campus for grievance redressal. Majority of the grievances reported are of minor in nature and are taken care of by the respective department. To take care of major grievances, the institute has a Grievance redressal 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

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 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

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website and attainment of POs and COs are evaluated

Answer:

The Institute's website and prospectus very clearly state the vision and mission of the institute as well as vision and mission of the all programmes. Website also provides PSOs, POs and PEOs of various programmes. Moreover, the dissemination of vision, mission (both institute and programmes), PSOs, POs and PEOs are carried out through displaying posters at various important locations of the institute like department blocks, labs, workshops, canteen, co-operative store, CCF, library, administrative blocks, seminar halls etc. The same are put on the assignmet books, lab records etc. All these steps ensure maximum dissemination to all the stakeholders of the institute.

The students are also made aware of the aims and objectives of the institute through Orientation Programmes, Seminars and Talks, etc. The institute ensures that staffs are informed of the system through discussions in the staff council meetings, departmental meetings, staff meetings etc. The course outcome of each course is defined along with the revised university syllabus itself.

Attainment of Programme outcomes and course outcomes are evaluated by the institution.

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.

Head of the Department, Department Academic Coordinator and Faculty Advisor strictly monitor the content delivery of every course and ensure 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 behaviour 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.

Our course evaluation is also CO based and the CO attainment of each course is calculated. Answer sheet is also designed appropriately for CO calculation. At the end of the course, each faculty in charge of the course collect course outcome survey. The collected data is analysed by the faculty.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

2.6.2 Pass percentage of Students during last five years

Answer: 90.22

2.6.2.1 Number of final year students who passed the university examination year wise during the last five years

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
150	173	196	195	190

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
187	184	197	201	233

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

2.7 Student Satisfaction Survey
2.7.1 Online student satisfaction survey regarding teaching learning process

Answer: 3.86

File Description	Document
Upload database of all students on roll	View Document

3.Research, Innovations and Extension
3.1 Resource Mobilization for Research
3.1.1 Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)

Answer: 41.41

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
39.78	0	1.63	0	0

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

3.2 Innovation Ecosystem
3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

Answer:

Our institution has created an ecosystem for research and Innovation by creating the following :

1) Human Resource Enhancement System :

Our institute has a good annual performance appraisal system. The faculty are encouraged to enhance their teaching, research, administrative skills and social service activities. Every year, the level of achievement is evaluated in root level and deficiency is identified, which is further scrutinized and rectified in the corresponding year. Faculty who have achieved the required norms are motivated further by salary increment and other promotions. Further, Faculty members are encouraged to undergo professional development programmes and organize and participate in Conferences, Seminars and Workshops. Leave is granted and financial support is provided to participate in India and abroad.

Teaching and non-teaching staff are encouraged to enhance their qualifications and pursue PhD programs. The institute has a well-defined and published research promotion policy, that is reflected in the Institute's vision. A good number of faculty have registered for Ph D programs and the numbers are increasing every year. A national level conference NATCON 21' was held in the campus, where all research scholars across the institute demonstrated their research work. The conference also provided a platform for the UG students to evaluate their project ideas by competing with inter colleges. The platform not only supported the enhancement of the skills of the faculty, but also the students.

The institute has already developed a good platform for conducting IEEE, ISTE activities and students development programs. They organize and conduct yearly competitive programs to enrich the individual skills.Institute has scheme of evaluation parameters through which we assess the level of participation. We have a system to provide activity points based on the participation. IEDC of the college has conducted many interactive sessions with industrialist and MOU partners to develop a research culture. IEDCE cell of EEE department have successfully started a incubation cell where they nurture set of identified students to develop a start up inside the premises and the efforts are moving positively.

Our Institute provides research guides of KTU, ANNA University and other universities. Many faculty are being nurtured and motivated through various programs to take up research through the available guides. The institute provides financial assistance and leaves are granted to participate faculty development programs in higher institutes. Institute also serves the necessary support to UG students and faculty to submit their research ideas to various research agencies like CERD, KSCSTE KERALA. MOUs are signed with industries to support the cause. Further using the TEQIP fund, we support the faculty for attending any international level conference activities. Moreover, faculty achieving any publications are suitably rewarded through yearly appraisal systems. Moreover, our institute also promotes patenting culture. We conduct programs to enrich this activity. Some of the faculty have successfully filed their ideas into patents.

Our Institute believes in the strength of interdisciplinary courses in promoting the research culture. Hence the students are encouraged to take up their final year projects with this in mind.

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

Answer: 4

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
2	1	1	0	0

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

3.3 Research Publications and Awards
3.3.1 Number of research papers published per teacher in the Journals notified on UGC care list during the last five years

Answer: 0.17

3.3.1.1 Number of research papers in the Journals notified on UGC CARE list year wise during the last five years

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
5	2	3	2	4

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

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

Answer: 0.07

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
4	2	0	0	0

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

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

Answer:

NSS unit plays vital role in establishing a robust network which has got volunteers at a time to organize social outreach programs. NSS arrange camp in the nearby village and give assistance to construction of road, planting trees, cleaning, electrification. Activities including Covid 19 awareness and vaccination campaign were organized in collaboration with the health department.

NSS annually conduct 7 days special camp. During Covid-19 pandemic, 2020-21 academic year, special camp was mainly focussed on donating blood. Total 100 unit of blood donated as part of the special camp in the blood bank of Kannur and Kasaragod districts

In the academic year 2021-22, National service scheme conducted one Blood donation camp in the campus and donated 75 unit of blood.

A seven days special camp conducted from 23rd December to 29th December 2022 at Adopted School, GLP school Pulyannoor. The Major works carried out in the camp are formation of a Vegetable Garden in the school, Fund raising by collecting papers, and waste plastics for construction of home for poor family, Aadhar- Voters ID linking program.

During Covid-19 pandemic College of Engineering Trikaripur in association with NSS unit conducted a workshop on developing automatic sanitizer machine and the developed machines were donated to frontline fighters like police station, fire station, primary health centre and Panchayath office. The project was greatly appreciated by media and the public and the news was one of the "100 news" on that particular day in the leading Malayalam TV channel "Twenty-Four".

The NSS units of the institution donated LED Televisions to the students of the adopted school (GHSS Kooliyad)

with the financial support from our faculty members and NSS volunteers . Using theses TV sets, the students of the school were able to watch online class during the Covid-19 period.

"*Pothichor*": Food Distribution is done every week which started from 1st November 2019 onwards. We distributed food at Mythri Charitable Trust Old Age Home, Govt. Hospital Cheruvathur and HOPE old age home, Pilathara. During Covid -19 Pandemic years we could not continue the project and from 2022-23 academic year onwards we have again started the project and till December 2022 Five hundred "Pothichor" was distributed to needy people and we are planning to give 500 more "Pothichor" before completing the current academic year.

Institute under Skill and Knowledge Develop Centre (SKDC) provide Computer Literacy training for Members of Local Self Government Representatives. More than 100 members are trained under the scheme.

IEEE members of the institute participated in the STEM outreach program. The webinar was organized for 6 schools (3 Rural and 3 Urban) on 26th Sept - 4th Oct 2020. Two teams of 4 members handled the sessions for the school students.

The session was interactive, that enabled students to get to know state-of-art technologies and how technology is uplifting our lives in every aspect also aimed to encourage female students to higher education. Achievements and contributions of various female leaders and engineers were shown to them. Various aspects and scope of projects the engineering students does were discussed and thus we were able to create self confidence in them so that they can also start implementing ideas of theirs during their education.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

3.4.2 Awards and recognitions received for extension activities from government / government recognised bodies

Answer:

One of the main attractions of the institute is its sincere and committed effort to the community to meet their needs as and when required.

PUNARJJANI

The NSS unit of the institute conducted a programme namely PUNARJJANI camp at Government Ayurveda College Kannur, Pariyaram. Through this programme, they made the hospital equipments and instruments both productive and useful, thereby created an asset of value Rs. 30,81,230/- by utilizing an amount of Rs. 58,266/-. For this great endeavour, we have honoured by receiving the Letter of Appreciation from Superintendent, Government Ayurveda College Kannur, Pariyaram.

Automatic Sanitizer Dispenser

The technical skill of our staff members is utilized during COVID-19 pandemic. During the first phase of COVID-19 pandemic, the staff club of the institute indigenously developed Automatic Sanitizer Dispenser and supplied to the frontline COVID warriors like Panchayath Officials, POLICE Department, Fire and Rescue Department, Primary Health Centre officials etc.at free of cost.

We Deserve

NSS unit received Certificate of Appreciation from District Collector, Kasaragod for their active participation in the WE DESERVE project. This project aims at differently abled people especially those who required external assistance for their most of the daily routines, like blind, neuro-muscular -skeleton affected people etc. Our institution act as the venue of the camp. NSS volunteers extended their helping hand in getting them to the auditorium and filling the required forms.

Flood Relief

Massive floods occurred in 2018 across the Kerala state and many became unsheltered and suffered. During those terrific days, our staff and students put their whole-hearted support to save the lives of the affected. We raised the relief fund, collected and supplied basic amenities required for the relief camps such as cloths, food, drinking water, stationary items etc. As a recognition, University awarded activity points to the students for the same.

Bus stand-cum-shopping complex

Kayyur-Cheemeni is one of the developing grama panchayaths in Kasaragode Dist. The village is much cited in the some proposed projects by Govt. of Kerala, like IT Park, Solar Park etc. In view of this, the Panchayath has been given priority to facilitate transportation facility and thus decided to construct a Bus stand-cum-shopping complex.

Department of Civil Engineering of our institution prepared plan and estimation for Bus stand-cum-shopping complex of the Kayyur-Cheemeni Grama Panchayath.

Kavvayi River Renovation Project

The Civil Engineering Department of our institution is closely associated with the renovation of Kavvayi river, Kasaragod district. The river is being polluted due to unscientific disposal of solid wastes, and improper sanitation. The authority decided to renovate the river and to prepare a Detailed Project Report (DPR) in this regard. Our institution was one of the participant colleges to prepare the DPR.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

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

Answer: 18

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
4	2	3	6	3

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

3.5 Collaboration

3.5.1 Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.

Answer: 21

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

4.Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 Availability of adequate infrastructure and physical facilities viz., classrooms, laboratories, ICT facilities, cultural activities, gymnasium, yoga centre etc. in the institution

Answer:

Endowed with modern facilities and learning resources to achieve academic excellence according to its vision and mission, College of Engineering- Trikaripur has a well-developed campus situated on 25 acres of land. It is furnished with technology enabled modern classes, seminar halls, tutorial spaces, laboratories (which are listed below)

- Civil Engineering – 9
- Mechanical workshop
- Electrical and Electronics Engineering – 8
- Electronics and Communication Engineering–8
- Computer Science & Information technology – 4
- Computer centre - 1
- Basic Sciences – 3

26 classrooms with white/black/green board, notice board, ICT enabled and Wi-Fi facility.

Each department is provided with a seminar hall and they are well furnished and equipped with state-of-the-art audio-visual systems. The college has an Air-Conditioned Seminar Hall with a seating capacity of 160. The college houses a 25-chair fully equipped Conference Hall.

Additional Skill Acquisition Programme Kerala (ASAP) room for 60 with Interactive Display Board, Cisco Tele-Presence Precision Cameras, Cisco Ceiling Microphone, HD audio surround system and 60 laptops.

Central Computing Facilities(CCF) and Browsing Centre are accessible to staff and students.

Central library has a collection of around 19400 volumes, 4400 titles of books, journals and periodicals exceeding 150, 7 e-journal packages and more than 300 CDs

Language Lab has 20 systems with language lab software

24x7 Wi-Fi facility with 100 Mbps Internet broad band connection from National Knowledge Network and a 10 Mbps connection as proxy provided by Kerala Vision in case of any failure in the main Internet facility.

To boost the sports interests, the college is equipped with a Football ground, a Cricket pitch, Basketball, indoor Badminton and Volley ball courts and a Table tennis Hall. The college religiously conducts the Sports meet, inter semester tournaments and coaching camps annually. These are used for daily practice by students and faculty.

Cultural Activities: The Student Union enthusiastically organizes the College Arts Fest every year. During 2021-22, the Arts festival Natyya'22 was conducted with much pomp and show. It witnessed an attendance of approximately 500 students from across colleges. The batch captains and event coordinators spearheaded the entire show.

For Professional preparation, Training and Placement Cell carries out Mock Group discussions and Interviews on a regular basis to improve Public Speaking and Communication Skill Development. A positive change was realized in the placement rates with this value-add.

Innumerable activities are arranged in the College Auditorium, Seminar halls and through temporary stage setup in the college ground.

YOGA training organized in the campus with assistance from Physical Education and Yoga trainers. The College auditorium is utilized for Yoga Classes and the Yoga Day Celebrations.

Women Health Awareness programs are orchestrated by the Women's Cell. Invited professionals brainstorm lifestyle related trivia with the students and faculty. Sanitary pad vending machine is within easy reach. First-aid facilities are present in all the laboratories.

The College harbours an extraordinary canteen and hostel mess. They are constantly monitored to guarantee quality with hygiene.

Water purifiers installed at various locations ensure safe and clean drinking water.

File Description	Document
Provide Link for Additional information	View Document

4.1.2 Percentage of expenditure, excluding salary for infrastructure augmentation during last five years (INR in Lakhs)

Answer: 19.08

4.1.2.1 **Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
9.187	0.9562	1.80137	18.11	11.73

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS), subscription to e-resources, amount spent on purchase of books, journals and per day usage of library

Answer:

The College of Engineering Trikaripur Central Library is well equipped with an exhaustive collection of technical books of more than 21000 volumes from different branches of engineering, print journals, magazines, newspapers, electronic resources etc. In addition to this back volumes of international and national Journals are also made available in the library. The library is fully computerized using an integrated library management system"Koha". It includes modules for acquisitions, circulation, cataloguing, serials management etc. Barcoding is done for every book available in the library. Book bank facility is provided for reservation category students. OPAC facility is provided for the users of the library. Digital library facility is also there using the software DSPACE .This institutional repository D Space of Central Library holds previous years question papers, syllabus, content pages of currently subscribed print journals, index of seminar reports, project reports etc. that can be accessed through digital library portal. The library has separate lending and reference sections with a large number of titles under all disciplines.

From the very inception of the college, the library is functioning by giving open access to its users. Hence the students and the teachers can select and take their books and journals according to their necessity and needs. Books are classified and arranged as per International Classification System 'Dewey Decimal Classification, 23rdedition". Shelf lists are displayed in each section for finding out the exact location of each document in the library. First of all, the user who is coming to the library can make use of the computer which is placed near to entrance of the library and having OPAC (Online Public Access Catalogue) to start with. From there users can pin-point the material they need, and straight away can go to the rack using the call number, which is collected from the OPAC system. The users can take the materials from the rack as they needed. After that user can refer or take it for lending according to their wish. Usually ten books are issued for a period of one semester for faculty members and three books for students for 14 days. If necessary, there is a provision for renewal of the same for the same period. The digital library is supported by wired LAN connection with 100 Mbps NKN.

Reprographic Facility: Users are permitted to take Xerox copies of parts of documents available in our library at nominal charges, from the Reprographic Centre functioning within the central library.

Support to students for self - learning activities

- Exclusive Server.
- Internet/ Intranet .
- OPAC (Online Public Access Catalogue).
- Access to e-books / e- journals.
- Collection of Previous year's Question papers of CUSAT/ KTU.
- Back volumes of journals are available.
- Display of new arrivals of books and periodicals.
- Collection of Seminar and project reports.
- Separate seating facility for faculty members and students.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

4.3 IT Infrastructure
4.3.1 Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection

Answer:

4.3.1: Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection

College of Engineering Trikaripur is providing sophisticated IT infrastructure which comprises of computing equipment, servers, software's and internet facility.

CE Trikaripur IT policy

Exists to maintain, secure, and ensure the legal and appropriate use of Information technology infrastructure established by the Institution on the campus

Establishes Institution-wide strategies and responsibilities for protecting the Confidentiality, Integrity, and availability of the information assets that are accessed, created, managed, and/or controlled by the College

Computing facility and Wi-Fi: Sets standards for the usage of internet facilities by different stakeholders and standards against the misuse of internet browsing facility.

Around 500 network port and 15 Wi-Fi access point with 100 Mbps internet connection facility is available in campus . A well-defined procedure is set up for regular assessment and replacement of computing system .

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 and a 10 mbps backup connection of kerala vision. Entire campus is Wi-Fi enabled and registered users can connect their laptop at any time to access internet. Fortigate Firewall is installed in year 2014-15 which is upgraded to GAJSHIELD GS165 UTM in the year 2020 and most of the switches initially connected in the campus network is recently replaced to high end programmable switches to ensure the proper connectivity. Also Some of the Wi-Fi repeaters are replaced to latest model for extending the Wi-Fi coverage. Restricting the misuse of internet browsing, a cap of 10GB download per month on each user is set.

Software : CE Trikaripur is using both licensed and open source software for meeting different academic requirement of the students. Microsoft campus licensed operating system, Windows 10 Professional with defender antivirus is used for virus threat protection. The organisation follows the strictly software policy set by the vendors. Moreover internet and software usage policy for different stakeholder are also set by the institution.

The campus has a central computing facility with number of systems as per the AICTE requirement to browse the internet and HP laser printer and scanners. The desktop systems purchased are recently upgraded with SSD.

File Description	Document
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Provide Link for Additional information	View Document

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

Answer: 3.25

4.3.2.1 **Number of computers available for students usage during the latest completed academic year:**

Answer: 251

File Description	Document
Upload supporting document	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Percentage of expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the last five years (INR in Lakhs)

Answer: 61.99

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
16.32	17.65106	27.30223	30.01597	44.42701

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

5.Student Support and Progression
5.1 Student Support
5.1.1 Percentage of students benefited by scholarships and freeships provided by the Government and Non-Government agencies during last five years

Answer: 57.48

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
530	453	423	429	398

File Description	Document
Upload supporting document	View Document

| Institutional data in the prescribed format | View Document |

5.1.2 Capacity building and skills enhancement initiatives taken by the institution include the following

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

Answer: A. All of the above

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

5.1.3 Percentage of students benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years

Answer: 81.75

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
816	745	723	773	119

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

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

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

Answer: A. All of the above

File Description	Document
Upload supporting document	View Document

5.2 Student Progression

5.2.1 Percentage of placement of outgoing students and students progressing to higher education during the last five years

Answer: 36.43

5.2.1.1 **Number of outgoing students placed and / or progressed to higher education year wise during the last five years**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
101	112	75	42	35

5.2.1.2 Number of outgoing students year wise during the last five years

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
187	184	197	201	233

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

5.2.2 Percentage of students qualifying in state/national/ international level examinations during the last five years (eg: JAM/CLAT/GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

Answer: 76

5.2.2.1 Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ Judicial Services/Public Prosecution services/All India Bar Exams/State government examinations) year wise during last five years

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
5	3	1	8	2

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
6	8	0	9	2

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

5.3 Student Participation and Activities
5.3.1 Number of awards/medals for outstanding performance in sports/ cultural activities at University / state/ national / international level (award for a team event should be counted as one) during the last five years

Answer: 11

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
1	0	1	5	4

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

5.3.2 Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)

Answer: 6.6

5.3.2.1 Number of sports and cultural programs in which students of the Institution participated year wise during last five years

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
7	6	5	5	10

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

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

Answer:

The College Alumni Association was established in the college campus during the year 2007. The main objective of this Alumni Association is to maintain a link between the students who have passed out and students studying in this college. Senior alumni members, those who are employed in various organizations/companies can help their junior alumni members by giving information about the job opportunities and career growth available in their organizations/companies. To facilitate the above objectives, the Association has been regularly organizing Onam Celebration and a meet among members once in every year.

In the year 2018-2019, 154 books at the cost of Rs 81261/- and an almirah at the cost of Rs 8744 was donated to the library.

Alumni scholarship was distributed to economically backward students of each branch based on their academic merit. Alumni meeting held on 25th October 2019.

During the covid-19 Pandemic when the college started online classes some of the students from poor financial background can not afford buying a smartphone. In that situation our alumni helped our students by providing 3 smartphones to students belonging to very poor financial background.This event was collectively done by the alumni interaction with the first pass out batch 2000-2004. From the fund, an amount was also given to a financially weak student who was doing his last semester in 2021.

During the year 2020-21 two online alumni interaction meetings were arranged. In the meeting reputed alumni's of the college interacted with the final year students and interaction was mainly sharing their experience. The programme was conducted through Google meet.

Alumni also awarded a total amount of Rs. 20000/- towards scholarships for the student belonging to poor financial background and had a much better performance in the university results.

An alumni meet of the first civil batch of the college(2009-2013) was conducted during the Onam vacation in August 2022. As a token of love and appreciation, an LCD TV was handed over to the head of Department to be placed at the seminar hall.

A Grand alumni meet was arranged that included members of all departments and batches in December 2022. As a whole the alumni has contributed an amount of Rs 100000/- for the purchase of a new bus for the college.

One of the alumni has strated a strartup company viz. **CONVAI INNOVATIONS** in association with **IIT Palakkad, Technology IHub foundation and NVIDIA** has signed MoU with our institute and has delivered lecturer to our students in the area fi AI.

An alumni from the EEE department has started a company named **NexTWatt** has signed MoU with our institute has organized expert talk to our students and provided an EV vehicle charging point in our college.

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File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

6.Governance, Leadership and Management
6.1 Institutional Vision and Leadership
6.1.1 The governance and leadership is in accordance with vision and mission of the institution and it is visible in various institutional practices such as decentralization and participation in the institutional governance

Answer:

The effective leadership of our governance body is highly influential in the formulation and implementation of vision and mission of the institute.

VISION

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

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 art facility for quality technical education

Develop personality and professional skills of the students through interaction with alumni, academia and industry

The primary goal of our institution is to provide a modern state of art engineering platform to foster the personal growth of our students while preparing them for many challenges in future.

To maintain the quality of institution, we periodically assess our position in the educational field and identify short comings by SWOT analysis. Governing body assess the findings, gives directions. Then, different stakeholders prepare short/long term plans that are necessary to maintain the quality of the platform to the required level.

Top management in association with department-wise committees formulates quality policy and integrates the same in the strategic plan. Formulation of action plans and defining the policy objectives attempts to address the issues of systematic change to provide quality education. Creating robust principles, frameworks, systems and processes the institution intends to reinforce the culture of excellence with emphasis on ethical and social values.

The effective leadership is visible in various institutional practices such as decentralization and participative management.

Through various academic and administrative committees, institution promotes and practices decentralization in all academic/administrative activities of the college.

1. The Principal with powers regarding financial and academic/administrative matters including the conduct of examinations perfectly delegates the power to concerned persons.

2. Head of the Departments consults with faculty members/lab staffs to decide on all department level matters and report to the Principal.

3. The Administrative Officer looks after the administrative activities by delegating the duties to office assistants and other administrative staffs.

4. Various statutory/non-statutory committees such as Anti-Ragging, Grievance Redressal, Discipline etc. take care of healthy and disciplined culture in the institute.

Academic Decentralization:

College Council Committee comprising of Principal, Senior professors, IQAC head, chief-librarian and other faculty members acts for holistic development of the college along with preparation of Academic Calendar, tracking of syllabus completion, managing co/extracurricular activities of the college etc.

Based on the policies and decisions devised by college council, IQAC involves in maintaining academic standards, conducting series examinations, implementing active measures for improvement of standards of teaching, research and training.

Administrative Decentralization:

This is done through Board of Governance, College Development Committee and Administrative Officer/Junior Superintendent.

Apart from this, every department has Department Advisory Committee (DAC) that periodically evaluates the functioning of the department and ensures the implementation of the decisions arrived at IQAC. Hence, a complete decentralized approach is followed by institution.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

6.2 Strategy Development and Deployment

6.2.1 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, deployment of institutional Strategic/ perspective/development plan etc

Answer:

The college council regularly meet and take necessary steps to formulate and implement strategic plans of the institution. Faculty Advisor (Mentor) system is introduced in all the departments and it is commendably supervised by the Principal and Head of the Departments. The following strategies are adopted by the institution to monitor and evaluate policies:

Regular meetings of the College Councils and IQAC

The feedback system (Regular feedback from Stake holders, Alumni Members, Staff and Students)

Periodical Internal Academic Audit Tconducted Two/Semester and External academic audit in every year by University.

Regular visits of the Principal to the departments and interaction with Heads of Departments

Heads of Department will monitor the system of each department regularly.

Annual Evaluation and Presentation by each Department and Programme Committee Coordinators regarding their activities.

The result analysis and placements review before the Management after completion of each semester.

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

The Honorable Chief Minister of Kerala is the Ex-officio Chairman of the Society. The Honorable Minister for Co-operation and Registration is the Ex-officio Vice Chairman of the Society and the Chairman of its Board of Governors with the Director of the Academy as the Member Secretary of the Society. The governance of the CAPE is vested with a seven member Executive Committee headed by the Honorable Minister for Co-operation. The members of executive committee are

Honorable Minister for Co-operation

Secretary to Government, Co-operative Department, Government of Kerala

Registrar of Co-operative Societies, Government of Kerala

Chief Executive Officer, Kerala Bank, Thiruvananthapuram

The Joint Secretary to Government, Finance Department, Government of Kerala

Director, CAPE

The Governing Body is responsible for Policy making and to verifying the reports through the Director. The decision-making procedures are made at appropriate levels in the organizational hierarchy. Statutory bodies such as IQAC Cell, Anti-ragging Cell etc., as per the university/government guidelines are also included in the organizational structure of the institution. A committee comprising of faculty members and administrative staff are involved in the planning and implementation, academic audit and evaluation. There are different bodies that give academic and administrative leadership to the institution. An optimum level of decentralization through the departmental system and participative decision-making process are in practice.

Service Rules:

The institution's service rules are according to Kerala Service rules and AICTE norms. The institution runs for 8 hours. The teaching and non-teaching faculty has the benefits of PF, Casual Leaves, Earned Leaves, Medical Leaves and Maternity leaves etc. Recruitment is taken place according to the norms of the AICTE and University. The recruitment is done through a competitive exam and interview. The appointment is made purely on merit basis.

Supporting bodies

- Grievance Redressal Mechanism: for students as well as staffs are in force to address the grievances.Grievance drop boxes are there in all the department blocks. Periodically opens the boxes and enquiry may be conducted if there are grievances.
- Internal Compliance cell : to take care of the grievances of female employees.
- Anti-ragging cell : functioning with the help of student unions.
- Career Guidance & Placement Cell - takes steps to promote placement, internships and helps students to clear competitive exams
- Counselling Platform - promotes mental health
- Other Auxiliary Bodies - Alumni association, PTA, student clubs.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

6.2.2 Implementation of e-governance in areas of operation

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

Answer: A. All of the above

File Description	Document
Upload supporting document	View Document

6.3 Faculty Empowerment Strategies

6.3.1 The institution has effective welfare measures and Performance Appraisal System for teaching and non-teaching staff

Answer:

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

College of Engineering Trikaripur has effective welfare measures in place for its teaching and non-teaching staff. The various welfare schemes are as follows:

Maternity and paternity benefits as per norms

Quality Improvement Programme

Career Advancement Scheme

Group Insurance Scheme (GIS)

State Life Insurance (SLI)

Festival allowance/ Bonus

Festival advance

Group Personal Accident Insurance Scheme (GPAIS)

The following facilities are also provided to employees for efficient functioning:

Medical leave

Casual Leave

Half pay/Commuted Leave

Earned Leave

Compensatory Leave

Yoga classes

Psychological counselling

Wi-Fi facility.

Computing facility

Canteen and Cafeterias

Identity cards

Cooperative society (Books, stationeries and other essential commodities)

Sports facilities

Transportation facilities

Facility of providing loans from leading financial institutions under state and central government.

- **Institutions Performance Appraisal System for teaching and non- teaching staff**

The performance of each employee is assessed annually after completion of one year of service. The objective is not only to objectively evaluate the performance as per established norms, but also to identify potential aspects for improvement that can eventually lead to further progress and growth of the employee. The salient features of the performance appraisal system are as follows:

Teaching Staff

a) The performance of each faculty member is assessed according to the Annual Performance Appraisal Form collected from feedback of students.

b) Promotions are based on the PBAS proforma for AICTE/UGC Career Advancement Scheme (CAS) that is based on the API score.

c) The institute undertakes a wide range of activities besides academics, for which faculty members are assigned additional duties and responsibilities, which are mostly voluntary. The Institute accords appropriate weightage for these contributions in their overall assessment.

e) The Annual Appraisal proforma filled by the Faculty Member is checked and verified by the Heads of the Departments, followed by the Principal and passed for annual increment.

f) Faculty members whose promotions are due are recommended based on their API score and are required to appear before the screening-cum-selection committee.

Non-Teaching Staff

All non-teaching staff are also assessed through annual confidential reports and annual performance appraisal. The various parameters for staff members are assessed under different categories i.e. Character and Habits, Departmental Abilities, Capacity to do hard work, Discipline, Reliability, Relations/Co-operation with superiors, subordinates, colleagues, students and public, Computer knowledge, Power of Drafting (where applicable), efficient organization of documents (in case of Ministerial Staff) and technical abilities (in case of workshop staff).

The comprehensive Annual Confidential Report comprises of 10 parameters. Each one of them is graded on a 10 point scale. The overall assessment is based on the cumulative grade by the Reporting Officer/HoD, which is then forwarded to the Principal by the forwarding officer. On satisfactory performance, all employees are granted promotions and financial upgradation. The Annual Confidential Report and the Performance Appraisal System has significantly helped in the evaluation of the performance of employees, in motivating them, analyzing their strengths and weaknesses and ensuring better performance.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

6.3.2 Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

Answer: 12.45

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
3	7	2	5	16

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

6.3.3 Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the last five years

Answer: 24.44

6.3.3.1 **Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the last five years**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
26	30	8	14	10

6.3.3.2 **Number of non-teaching staff year wise during the last five years**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
19	19	19	19	19

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

6.4 Financial Management and Resource Mobilization
6.4.1 Institution has strategies for mobilization and optimal utilization of resources and funds from various sources (government/ nongovernment organizations) and it conducts financial audits regularly (internal and external)

Answer:

The Institution conducts internal and external audits on the financial transactions every year to ensure financial compliance. Internal audit is conducted yearly by the internal audit committee constituted by CAPE. Then, compliance report is submitted to the management through principal. External audit is conducted once in every year by an external agency. The mechanisms used to monitor effective and efficient use of financial resources are as below:

Before the commencement of every financial year, principal submits a budget proposal by considering the recommendations made by the HODs, to the management.

College budget includes recurring expenses and non – recurring expenses.

The expenses will be monitored by the accounts department as per the budget allocated by the management. The depreciation costs of various things purchased are also worked out.

Process of the internal audit:

All vouchers are audited by an internal financial committee on yearly basis. If any discrepancy is found, the same is brought to the notice of the Principal.

Process of the external audit:

Yearly audit by chartered accountant is done as per government rules. After the audit, the report is sent to the management for review. The audited statement is duly signed by the authorities of the management and chartered accountant.

Sources of funds are as follows:

Fees: Fees charged as per the university and government norms from students of various courses.

Government Grants: The College receives plan and non plan funds from the State Government. For this, we prepare and send an annual budget to the state government through Director CAPE.

Our resource mobilization policy and procedures are as follows:

The institution set up different Committees as per the directions of the AICTE

The AICTE Committee, in close coordination with the CDC and the IQAC, monitors the mobilization of funds and makes sure that the funds are spent for the purpose for which they have been allocated.

The Purchase Committee takes care that purchases are done properly and in accordance with the rules.

The College Development Committee takes a review of the mobilization of funds and the utilization of these sources periodically in their meetings.

Regular internal audits from the Charted Accountant and external audits from the government make sure that the mobilization of the resources is being done properly.

The time-table committee looks after the proper utilization of classrooms and laboratories.

The Library Advisory Committee takes care that the resources in library are utilized optimally.

Campus cleanness and its utilization are monitored by the Staff Club.

To ensure the optimum utilization of resources, the Principal issues directions.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

6.5 Internal Quality Assurance System
6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities

Answer:

The IQAC works towards improving and maintaining the quality of education, identifying and suggesting new ways of using teaching aids, developing suitable infrastructure, and offering suggestions for the new courses. IQAC is an effective and efficient internal coordinating and monitoring mechanism that plays a vital role in maintaining and enhancing the quality of the institution. The IQAC meets every quarterly and the sub-committees dealing with various activities and departments implement the IQAC guidelines and report the feedback. Significant improvements in quality have been made by institutionalizing the following IQAC initiatives:

Strategic planning of key areas and assigning responsibilities:

Academic results

Student technical training & soft skills development

Placement support

Research and development

Industry Interaction

Monitoring and mentoring of accreditation, academic and administrative activities.

Academic inspections are carried out periodically to assess the quality of academics which involves:

Mechanisms to identify, review and reform academic practices

Review of departmental facilities

Facilitate implementation of innovative methods in the departments

Self-development of faculty members

The IQAC continuously reviews and takes steps to improve the quality of the teaching-learning process.

The Academic Calendar is prepared in advance at par with the University, displayed and circulated in the Institute and strictly followed. Commencement of classes, holidays, summer and mid-term vacations, examination schedule and declaration of results are notified in the Academic Calendar. Through compulsory Orientation Programme, students are made aware of the philosophy, uniqueness of the Education system, teaching learning process, system of continuous evaluation, mandatory core & non-credit courses, various co-curricular activities, activity points, discipline and culture of the Institute. All students are also given a guided tour of the campus. Students are apprised of the Time-Table, Program structure, syllabi of the courses before the semester commences. Important announcements are made in the campus management software and notice board. Attendance and conduct of classes are monitored by HODs and Faculty advisors of various classes. The Discipline Committee members make random visits to ensure smooth functioning of classes. Class and Course Committees are regularly conducted with students to take feedback and appropriate steps are taken to enhance the teaching-learning process. Feedback is taken from students regarding courses, through IQAC. Students are also free to approach the Principal for feedback and suggestions. Feedback is properly analyzed and shared with the Principal, HODs and individual faculty members. The teaching-learning processes are reviewed, and improvements implemented, based on the IQAC recommendations.
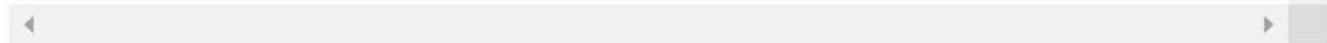
File Description	Document
Provide Link for Additional information	View Document

6.5.2 Quality assurance initiatives of the institution include:

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

Answer: B. Any 3 of the above

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

7.Institutional Values and Best Practices
7.1 Institutional Values and Social Responsibilities
7.1.1 Measures initiated by the Institution for the promotion of gender equity and Institutional initiatives to celebrate / organize national and international commemorative days, events and festivals during the last five years

Answer:

International Day for the Elimination of Violence against Women

Day for the Elimination of Violence against Women was observed on 25/11/2020 by the NSS unit of College of Engineering Trikaripur and a poster was circulated through online platforms with the slogan "Stop Violence against Women"

       Green the Red

A seminar on eco-friendly menstruation, titled: GREEN THE RED, was conducted by NSS unit of College of Engineering Trikaripur in cooperation with Rotary club Cheruvattur on 27.05.2022 Friday in the college. The program started at 11.00 am which was inaugurated by district governor (3204 faculty),Dr.Rajesh Subhash , principal Dr Vinod Pottakulath did the presidential address and welcome speech was given by NSS program officer Mr.Anoop P V. The seminar to aware the students about having a hygienic and eco-friendly menstruation, included 150 students , which was handled by Dr. Sruthi Pandit. It was an interactive, fun and informative class, after which one of the volunteer secretaries, Sreelakshmi Rajan thanked every personality and the volunteers for being a part of it, on behalf of NSS and Rotary club.

      WOMEN'S FORUM

Women's Forum was established in College of Engineering Trikaripur as a platform for women to express their views and recognise their strengths. The forum hopes to build the future with women's vision. At present, the main focus of women's forum is empowering the women socially, economically and emotionally. To enhance the maternal instincts of women, Women's Forum in collaboration with NSS unit and Rotary Club of Karivellur, conducted a seminar on Breastfeeding and Child Health on 10th August 2018. The programme was inaugurated by Dr. Vinod Kumar, Regional co Ordinator, Rotary club, Karivellurand the talk was conducted by Dr. Ranjith Kumar, Paediatrician, Pariyaram Medical College, Kannur, Kerala Around 100 students and staff attended the programme.

File Description	Document
Upload Additional information	View Document

| Provide Link for Additional information | View Document |

7.1.2 The Institution has facilities and initiatives for

1. *Alternate sources of energy and energy conservation measures*
2. *Management of the various types of degradable and nondegradable waste*
3. *Water conservation*
4. *Green campus initiatives*
5. *Disabled-friendly, barrier free environment*

Answer: A. 4 or All of the above

File Description	Document
Upload supporting document	View Document

7.1.3 Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following

1. *Green audit / Environment audit*
2. *Energy audit*
3. *Clean and green campus initiatives*
4. *Beyond the campus environmental promotion activities*

Answer: A. All of the above

File Description	Document
Upload supporting document	View Document

7.1.4 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic diversity and Sensitization of students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)

Answer:

The college takes keen initiatives to ensure tolerance and harmony towards cultural, regional, linguistic and communal. Many programmes are organised for the sensitization of students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens.

We observed important days and conducted several programs. On these important days we made posters with apt messages/quotes and shared via social networks such as whatsapp, facebook, Instagram etc. Also we organized some Competitions such as Quiz, Essay Writing, Debate, Drawing, Poster designing, Letter writing, Selfie contest, etc. Awareness classes also done including webinars.

Important Days observed in the campus

- June 5 - Environmental Day

- June 14 - World Blood Donor Day

- June 19 - National Reading day

- June 21 - International Yoga Day (Yoga at home)

- June 26 - Anti Drug Day

- July 11 - World Population day

- August 6 - Hiroshima day

- August 15 - Independence day

- September 5 - Teacher's day

- September 15 - Engineer's Day

- September 16 - Ozone day

- September 24 - NSS Day

- October 1 - National voluntary blood donation day

- October 2 - Gandhi Jayanthi

- November 14 - Children's Day

- December 1 - AIDS day

- December 10 - Human Rights Day

- January 12 - National Youth Day

- January 26 - Republic day

- March 8 - Women's Day

- March 22 - World Water Day

College union celebrates Onam, Christmas and Fresher's Day in the campus by incorporating students and staff from all communities and sectors. Onam is a special event in Kerala, that remarks the socio-economic equality among the people. Fresher's Day is a welcome event for newly admitted students by the seniors under the College union platform. This event help to impart feeling of security and confidence among the freshers irrespective of their socio economic background. Some of the other related programs are listed below

Making of Automatic Sanitizer Dispenser

We made low cost sanitizer dispenser and donated to Kerala Fire and Rescue (Trikaripur) and

Cheemeni Police Station. Also kept in our institution. We distributed on 25th June 2021. It was done in cooperation with EEE department of our college and Rotary club of Cheruvathur.

TV Challenge

We donated LED Televisions to some students of GHSS Kooliyad, who were in need of a TV for watching online class during the Covid-19 period. We handed over it on 18th July 2021.

Training (Online) for making low cost Sanitizer Dispenser

We organized a webinar on making low cost Sanitizer dispenser. Electrical department Lab

Instructor Mr. Anil K handled the session.

"Pothichor"

 Food (Lunch)Distribution is done every week which started from 1st November 2019 onwards. We distributed food at Old age homes and Govt. Hospitals. During Covid -19 Pandemic years we could not continue the project and from 2022-23 academic year onwards we have again started the project and till December 2022 Five hundred "Pothichor" was distributed to needy people and we planning to give 500 more "Pothichor" before completing the current academic year.

File Description	Document
Upload Additional information	View Document

7.2 Best Practices
7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual

Answer:

Best Practice 1

1.Title of the practice:

Targeted training: A road to success

Systematic soft skill and communication skill training to fine tune the professional competence of B Tech students

Lateral entry test (LET) coaching for engineering diploma holders.

Rigorous Crash course for Kerala Engineering Architecture Medical (KEAM) Entrance Aspirants

2. Goal:

To improve the professional competence of B Tech students.

Support the socially and financially backward students for LET and KEAM entrance examinations.

3.Context:

Lack of proper training to appear for the competitive examinations is one of the main reasons for the poor performance of students from rural areas. They are actually deprived from the costly coaching due to financial and social issues. The prime objective of the programme is the uplift of the meritorious students from low income backgrounds so as to ensure social justice.

Well structured training programmes are conducted to improve the soft skills and communication ability of the students apart from curriculum under the banners of Career Guidance and Placement Cell (CGPC) and Skill and Knowledge Development Centre (SKDC).

LET coaching is a community extension programme in which a well defined schedule was prepared in advance and circulated in the nearby polytechnic colleges. The entire LET admission procedure was also discussed during the course. The course was absolutely free of cost.

KEAM Crash course is designed for Higher secondary students to fine tune their preparation.

4.Practice:

Skill development programmes

Firm specific training programmes are conducted by the CGPC to perfectly mould students to suit the MNCs. Mock interview sessions and group discussions are separately arranged for the preliminary test qualifiers.

LET Coaching

The structure of the LET course schedule was prepared by incorporating all the basic engineering disciplines and engineering mathematics. All the live sessions were conducted by ensuring active student interaction.

KEAM Crash course

KEAM Crash coaching sessions are handled by well experienced teachers in the specific subjects. The classes are conducted in both online and offline mode. Module tests and mock tests are also conducted during the course.

5. Evidence of success:

The training programs by CGPC helped to impart confidence in the students and it was reflected in the placement statistics.

The sincere participation of the students in the mock test and the scorecard reflects the success of the LET coaching programme. The students also expressed their gratitude for the course materials supplied.

The KEAM Crash course helped to enable socially and financially backward students to appear in competitive examinations for professional education.

6. Challenges:

A minority faction of the students with backlogs show hesitance to participate in the skill development programmes.

The LET and KEAM courses were well planned and organized with the support from PTA of the college. There were no major challenges, except the network issues from the students end. The participants requested for additional sessions especially in mathematics, but to incorporate more sessions in the stipulated time was not easy.

Best practice 2

1.Title of the practice

 'Rudhiram':   Enhancing public support by encouraging younger generations for blood   donation.

2.Goal

To enhance social commitment among the younger generation by donating blood to compensate for the shortage in blood banks.

3.Context

Health sector had witnessed an acute shortage of blood during the first wave period of COVID pandemic in Kerala. People were not ready to come out and visit hospitals and other health centers due to the fear of COVID spread. At the same time, the number of hospital admitted cases increased alarmingly. Realizing the situation, the College NSS unit made a campaign among the volunteers to encourage blood donation and spread a message among the common public also. A special blood donation camp, named "105" had arranged to donate 105 units of blood. The volunteers, their friends and relatives whole heartedly participated in the venture. Thereafter a KTU blood cell unit was formed in the college to coordinate blood donation activities.

4.Practice

The special blood donation camp, '105' was conducted as a one week program   from March 29 to April 4,2021. It was very difficult to conduct a blood donation camp at a particular center as the college campus was totally closed and was functioning in the online mode. So, the volunteers were directed to donate blood at the health centers nearest to their home within the period of one week from March 29 to April 4,2021. Friends and relatives of the physically unfit volunteers were also contributed to accomplish the target. This movement helped a lot to impart confidence among the public to come forward and donate blood. The posters of the program were circulated among the students and common public to make them aware of the necessity of blood donation to resolve the crisis in the health sector. Another Blood donation camp was conducted in the College campus on 08/06/2022 in association with Blood donors Kerala and Blood Bank, Kanjagad Govt Hospital.

5.Evidence of success

The special camp was named with the angel number **105**, as the movement was a   real help to others. The NSS Volunteers with the help of their friends and relatives had succeeded to donate a total of 105 units of blood in one week during the COVID pandemic period. This event helped to create an enthusiasm among the public, especially in the younger generation to take up the situation and come forward for blood donation. Another Blood donation camp was conducted in the College campus on 08/06/2022 and 85 students participated in the program and 70 units of blood were donated.

6.Challenges

People's hesitance to visit hospitals and health centers due to the fear of COVID spread was a real challenge. The organization of an offline blood donation awareness camp during the COVID wave period was very difficult and the online mode has its own limitations to convey the message to the public. A great faction of the younger generation is not aware of the necessity of blood donation and are still reluctant to donate blood.

File Description	Document
Best practices as hosted on the Institutional website	View Document

7.3 Institutional Distinctiveness
7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Answer:

Title:

"CET Attitude of Learning (CAL)" - a unique experience towards development of high skilled, socially responsible and empathetic engineering graduates

The institution vision and mission are achieved by "CET Attitude of Learning", an inclusion of

activities and engagements involving students, faculty and community.

College of Engineering Trikaripur Attitude of Learning (CAL) Methodology:

- Programmes are designed to mould value-based, socially-responsible, competent, industry-ready Citizens.
- Carefully drafted activities/events designed to create ever lasting change in student personality

CAL : Key aspects

Conceptual Learning :

Students are introduced to concepts and theoretical framework through projects, case methods, lectures, debates etc.

Participation of students and faculty in summer schools, research projects and conferences.

Proper career guidance with GATE and MOOC courses

Remedial classes, tutorial system and peer-learning circles.

Students experience practical life through innovative methodologies like field visit, internship.

 projects etc.

Professional Competence

Students are moulded into complete individuals by inculcation of key skills like communication, analytical skills etc. through various training programmes

Innovation and Entrepreneurship Development Centre (IEDC) for instilling entrepreneurial skills

Regular Personality Development and Skill Development sessions

Aptitude training and communication labs

Social Responsibility

Aims at moulding professionals with humanitarian empathy by exposing stakeholders to real-life situations and building up their social conscience

Associations with various agencies with focus on gender equity promotion

Enrichment Lectures on topics of societal relevance

CAL ensures transformation of students to industry-ready, socially sensitive and complete individuals

As our mission clearly states, our primary target is to develop students with all around capabilities. Through our academic activities, we strive the best to ensure the quality of the graduates. Post-covid, our institution equally concentrates on creating social empathic and ethical students. Major reason is the struggles and economic fall out of society. Our institution believes in the necessity of every student in building the society and nation. We believe that college life is not all about academics, games and friends. It is also about learning to interact with other people, being aware of social requirements. We provide an opportunity to every student to contribute to make the society in which they live a better place and to grow as better individuals. We are committed to the task of inculcating social values and responsibilities in its students. In line with its vision of working towards the socio-economic development of the country, the Institution has taken utmost care to give back to the community. Several student committees are formed to carry out the duties towards society. Some glimpses of the unique activities of CAL are detailed here.

Skill and Knowledge Development Centre (SKDC)

SKDC is a venture by CAPE (Co operative Academy of Professional Education) with the objective of addressing the skill gap of Engineering students. SKDC provides hands-on training with certification under various vocational topics. SKDC, in association with Kerala Institute of Local Administration (KILA) has started a computer literacy program for Local and District Panchayath members of northern Kerala districts as a public extension program.

New Housing Literacy for Rebuilding Kerala: Workshop and Exhibition

The post flood-rebuilding scenario has realized the need to rethink the conventional ways of development and thereby streamlining construction processes and methods to attain sustainable and environment friendly infrastructure to rebuild Kerala. So, a one day workshop and Exhibition on "New Housing Literacy for Rebuilding Kerala", was organized in association with Department of Housing, Government of Kerala and District Nirmithi Kendra on 09/02/2019

"Pothichor" - Food distribution program

"Pothichor" is a food (lunch) distribution program by National Service Scheme (NSS) under the flagship program of University National Service Scheme KTU CARE. Food Distribution is done by NSS units of the college in every week from 1st November 2019 onwards. We distributed food at Mythri Charitable Trust Old Age Home, Govt. Hospital Cheruvathur and HOPE old age home Pilathara. During the Covid -19 Pandemic years we could not continue the project and from 2022-23 academic year onwards we have resumed the project and till December-2022, 500 no.s of Pothichor were distributed to the needy people and we are planning to give 500 more Pothichor before completing the current academic year.

Electoral Literacy club (ELC)

Our institute has set up an Electoral Literacy club with the objective of making awareness among the students and the public about the democratic right of an Indian and the importance of casting a vote in Elections. Electoral Literacy club is working under the NSS unit of College of Engineering Trikaripur.

NSS unit has conducted a program to enroll the students in the voter's list. ELC conducted a workshop to link the aadhar with the voter's identity card. ELC celebrated the national voter's day on 25/01/2023 and the function was inaugurated by the District Collector, Kasaragod.

Also, the NSS unit conducts regular activities like tree plantation and field visits to expose the students to the pressing issues in our society.

- Cleaning and renovation works were carried out at Family Health Centre Valiyaparamba on 21/10/2022. Eighteen volunteers of the NSS unit participated in the program.
- Blood donation camp was conducted at College on 08/06/2022 in association with Blood donors Kerala and Blood Bank, Kanjagad Govt Hospital. 85 students participated in the program and 70 units of blood were donated.
- Hair donation camp was conducted at College on 15/07/2022.
- A seminar on Topic "Let's talk about HIV/AIDS" was conducted as part of World AIDS day on 01/12/2022.

Students are also taken on field visits to related industries and encouraged to participate in competitions dealing with environmental issues. During the flood situation, our students had conducted donation drives in the past. Our college NSS team developed an automatic sanitizer dispensing machine and provided it to the Police station, Fire station and other nearby offices.

The ECE 2020-24 batch in memory of their batch mate Sri. Yedu Krishnan on his birth day spent one day with the inmates of the orphanage by Swami Anand Thirth Trust at Payyanur, Kannur (Dt).

Hence, our institute has concentrated on developing not only industry ready highly skilled engineering graduates, but also socially responsible and empathetic ones.

File Description	Document
Appropriate web in the Institutional website	View Document
Any other relevant information	View Document

Extended Profile

Students

Number of students year wise during the last five years

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
816	778	724	773	794

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

Teachers

Number of teaching staff / full time teachers during the last five years (Without repeat count):

Answer: 92

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

Number of teaching staff / full time teachers year wise during the last five years

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
53	53	53	53	53

Institution

Expenditure excluding salary component year wise during the last five years (INR in lakhs)

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
35.95	20.83	37.45	43.25	81.46

Conclusion

Additional Information :

Once, Malabar region of Northern Kerala was considered to be an under developed area and CAPE organisation started College of Engineering Trikaripur as a service to this part of Kerala. over the period, the Institution not only attained reputation in its service, but could able to generate lot of professionals who are rooted in every corners of government sectors and also in educational institutions. The contribution of our Alumni to the society is immeasurable. One of our Alumni is serving as an IPS officer and other as a professor in IIT Roorkee, not to mention the ones who are serving in various Kerala government sectors. The institution has a registered alumni chapter and through which the alumnis organise various interactive events with the current students. They also contribute back and it's instrumental in forming the departmental libraries in all the departments. They also support the academic activities by sponsoring best identified projects. Our institution has played a direct role in uplifting several nearby rural and tribal areas. The college has witnessed a rise in the number of students seeking admission in the different courses offered by it. The dedication, commitment and loyalty of the staff, along with the enthusiasm and achievements of the students over the years have contributed largely to bring our college to its present position. Time and then, all the faculty consistently attend various fdp and sttp programs organised by higher institutes to reorient themselves
.

Concluding Remarks:

An institution like the College of Engineering Trikaripur, has been thriving on the aspirations of students coming mostly from lower middle-class families for more than twenty years now. The social brand value of the institution has been built upon the reputation that pass-outs from the institute get accepted in Indian job market readily and can keep their jobs once employed. Thus, the pass-outs become contributors to the industrial development of the country and also in uplifting the society. The entire transformation from an aspiring youngster to a young adult contributing to the society and industry happens at our institution and the members of the faculty are largely responsible for causing this transformation in students. Institution has constantly thrived in updating itself by regular introspection of its strategies and educational pedagogies.

EXCLUDED METRICES

No Metrices are Excluded

ANNEXURE

1.Metrics Level Deviations

Metric ID Sub Questions and Answers before and after DVV Verification

Percentage of students enrolled in Certificate/ Add-on/Value added programs as against the total number of students during the last five years

1.2.2

1.2.2.1. Number of students enrolled in subject related Certificate/ Add-on/Value added programs year wise during last five years
Remark : As per supporting document provided in metric 1.2.1 Input modified

Percentage of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (Exclusive of supernumerary seats)

2.1.2

2.1.2.1. *Number of actual students admitted from the reserved categories year - wise during the last five years*
2.1.2.2. Number of seats earmarked for reserved category as per GOI/ State Govt rule year wise during the last five years

Percentage of full-time teachers against sanctioned posts during the last five years

2.4.1

2.4.1.1. Number of Sanctioned posts / required positions for teaching staff/ full time teachers year wise during the last five years:
Remark : Input modified excluding Physical Education Director

Percentage of full time teachers with NET/SET/SLET/ Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)

2.4.2

2.4.2.1. Number of full time teachers with NET/SET/SLET/Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. year wise during the last five years
Remark : Input modified excluding Physical Education Director

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

3.2.2

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

Number of research papers published per teacher in the Journals notified on UGC care list during the last five years

3.3.1

3.3.1.1. Number of research papers in the Journals notified on UGC CARE list year wise during the last five years

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

3.3.2

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

Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organised in collaboration with industry, community and NGOs) during the last five years

3.4.3

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

Percentage of expenditure, excluding salary for infrastructure augmentation during last five years (INR in Lakhs)

4.1.2

    4.1.2.1. Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)

Percentage of students benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years

5.1.3

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

Percentage of students qualifying in state/national/ international level examinations during the last five years (eg: JAM/CLAT/GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

5.2.2

    5.2.2.1. Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ Judicial Services/Public Prosecution services/All India Bar Exams/State government examinations) year wise during last five years

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

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

5.3.2

    5.3.2.1. Number of sports and cultural programs in which students of the Institution participated year wise during last five years

Implementation of e-governance in areas of operation

    1. **Administration**
    2. **Finance and Accounts**
    3. **Student Admission and Support**

6.2.2   4. **Examination**

Answer before DVV Verification : A. All of the above
Answer After DVV Verification: A. All of the above
Remark : As per supporting documents provided by HEI Input modified

Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the last five years

6.3.3

      6.3.3.1. Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the last five years
      6.3.3.2. Number of non-teaching staff year wise during the last five years

2.Extended Profile Deviations

ID   Extended Questions

Number of students year wise during the last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
816	778	723	772	794

1.1

Answer After DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
816	778	724	773	794

2.1

Number of teaching staff / full time teachers during the last five years (Without repeat count):
Answer before DVV Verification : 54
Answer after DVV Verification : 92

Number of teaching staff / full time teachers year wise during the last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
54	54	54	54	54

2.2

Answer After DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
53	53	53	53	53