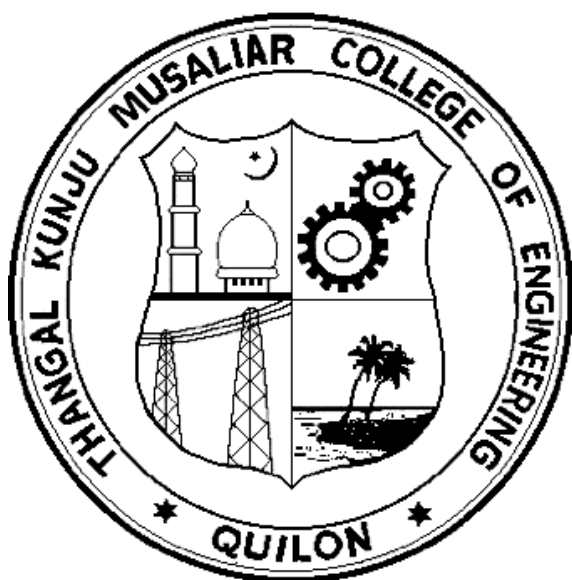


Annual Quality Assurance Report (AQAR)

(For Affiliated/Constituent Colleges)

(As per Revised Accreditation Framework in November, 2017)

ACADEMIC YEAR 2017-18



Internal Quality Assurance Cell (IQAC)

**THANGAL KUNJU MUSALIAR COLLEGE OF ENGINEERING,
KOLLAM – 691005, Kerala, India**

Submitted to

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission

P. O. Box. No. 1075, Opp: NLSIU, Nagarbhavi, Bengaluru - 560 072 India

FORWARD

This Annual Quality Assurance Report (AQAR) is submitted by the Internal Quality Assurance Cell (IQAC) of T. K. M. College of Engineering, Kollam, Kerala, to NAAC for the academic year 2017 – 18. The Academic Year 2017 – 18 includes the data from 1st June 2017 to 31st May 2018.

Coordinator, IQAC

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The Annual Quality Assurance Report (AQAR) of the IQAC
(For Affiliated/Constituent Colleges)

PART – A

Data of the Institution

(data may be captured from IIQA)

1. Name of the Institution:

THANGAL KUNJU MUSALIAR COLLEGE OF ENGINEERING

- Name of the Head of the institution : Dr. S. Ayoob
- Designation: Principal
- Does the institution function from own campus: 03/07/1958
- Phone no./Alternate phone no.: +91474-2712024
- Mobile no.: +91 9847072024
- Registered e-mail: principal@tkmce.ac.in
- Alternate e-mail : tkmceoffice@gmail.com
- Address : TKM College PO, Karicode.
- City/Town : Kollam
- State/UT : Kerala
- Pin Code : 691005

2. Institutional status:

- Affiliated / Constituent: Affiliated College
- Type of Institution: Co-education
- Location : Urban
- Financial Status: Grants-in aid
- Name of the Affiliating University: APJ Abdul Kalam Technological University
- Name of the IQAC Co-ordinator : Dr. A. Sadiq
- Phone no. : + 91 474-2712024
- Alternate phone no.
- Mobile No.: +91 9497361282

- IQAC e-mail address: sadiq@tkmce.ac.in
- Alternate Email address: tkmceoffice@gmail.com

3. Website address: www.tkmce.ac.in

Web-link of the AQAR: (Previous Academic Year 2017-18):

<http://tkmce.ac.in/internal-quality-assurance-cell-iqac.html>

4. Whether Academic Calendar prepared during the year? Yes

If yes, whether it is uploaded in the Institutional website: Yes

Weblink: <http://tkmce.ac.in/category/academics/academic-calendar>

5. Accreditation Details:

Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1 st	A	3.11	2017	from: to:

6. Date of Establishment of IQAC: DD/MM/YYYY: 13/10/2015

7. Internal Quality Assurance System

7.1 Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & duration	Number of participants/beneficiaries
NAAC Accreditation	26 – 28 Oct 2017	Entire college
NIRF	2017	Entire college
Academic Audit (University)	21/02/2018, 27/04/2018	All faculties and students

Note: Some Quality Assurance initiatives of the institution are:

(Indicative list)

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

**8. Provide the list of funds by Central/ State Government-
UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.**

Institution/ Department/Faculty	Scheme	Funding agency	Year of award with duration	Amount (Rs.)
Institution	GIA SC/ST Students Hostel	AICTE		1233803.10
Institution	CERD Project	CERD		150000.00
Institution	CERD Project	CERD		160000.00
Institution	CERD Project	CERD		120000.00
Institution	CERD Project	CERD		180000.00
Institution	CERD Project	CERD		100000.00
Institution	BRNS-DAE Project	BRNS-DAE		1951463.00
Institution	BRNS-DAE Project	BRNS-DAE		510266.00
Institution	KSCSTE Project	KSCSTE		365000.00
Department	KSCSTE Fellowship to Ph D students	KSCSTE		320000.00
Institution	QIP	AICTE		893162.00
Department	KSCSTE Fellowship	KSCSTE		284000.00
Total				6267694.10

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

*upload latest notification of formation of IQAC :

<http://tkmce.ac.in/internal-quality-assurance-cell-iqac.html>

10. No. of IQAC meetings held during the year: 2

The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website: **Yes**

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

<http://tkmce.ac.in/internal-quality-assurance-cell-iqac.html> (Meeting Minutes)

11. Whether IQAC received funding from any of the funding agency to support its activities during the year? No . Supported by College

If yes, mention the amount: NA Year:

12. Significant contributions made by IQAC during the current year 2017-18 (maximum five bullets)

- * NAAC Accreditation
- * Academic audit (Internal and External)
- * Social outreach programs
- * Orientation program for newly joined staff

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

Plan of Action	Achievements/Outcomes
Orientation program for newly joined faculties	New faculties are aligned with OBE and the education system of the college
NAAC visit	Accredited with A Grade (CGPA 3.11)
Academic audit	Teaching-learning process are made consistent with that said by the University

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

Name of the Statutory body: Governing Body Date of meeting(s): Yet to be arranged

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning?

Yes

Date: 26/10/2017

16. Whether institutional data submitted to AISHE: Yes/No: Yes

Year: 2018

Date of Submission: 28-02-2018

17. Does the Institution have Management Information System?

Yes

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

EazyCampus is the academics automation system used in the college. It gives controlled access to students, parents, faculties and administrators of various levels. It enables the students and parents to monitor the performance of students from anywhere at anytime. Faculty updates the academic data and monitors student performance through this platform. The teaching plan, teaching notes, assignment questions and question bank are uploaded on the *EazyCampus* for the use of the students. The evaluation of teachers by students is also done for every course through *EazyCampus* to identify flaws in teaching.

It has various modules for course file, course diary, defining CO-PO mapping, CO-PO index computation, internal evaluation results and reports, progress report, class performance statistics, teacher evaluation, attendance, Student personal data, announcements/notices, leave submission facility, timetable and so on.

PART – B

CRITERION I – CURRICULAR ASPECTS

1.1 Curriculum Planning and Implementation

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

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

In the beginning of the academic semester, the college prepares an academic calendar (semester-wise academic schedule) comprising the entire schedule for the semester. This is followed by an academic budget which enlists the academic programs for the respective semester with a budget planning. The

College Planning Committee (CPC) scrutinizes and approves the programs listed and is forwarded to the Principal for necessary allocation of funds to individual departments.

Before the end of current semester, the subjects for next semester from curriculum are given to the faculty. The subject priorities of faculty are presented before the Department Academic Committee (DAC) and approved. Options are given to students for selecting the elective subject, which in turn is consolidated by the Senior Advisor and presented to DAC.

The opted subjects are allocated to faculty based on their field of specialization, number of times subjects taught and experience. In the beginning of each semester, a course plan is prepared. The concerned faculty for each subject prepares a detailed lesson plan, giving the units of the syllabus and proposed date of completion of the unit. It also provides information about the text books to be followed and the books for reference.

A schedule for internal assessments is also prepared (internal assessment schedule) and distributed to students so as to avoid clustering of assessments during a particular period. The academic calendar and schedule of internal assessment are uploaded in Eazy Campus (campus management software) and can be easily accessed by the students. Course files are prepared and maintained by the faculty which includes syllabus, course plan, teaching materials such as tutorials, assignments, internal test question papers, previous year University question papers etc. Laboratory manuals are prepared incorporating detailed procedures for conducting of experiments. Apart from regular classes, seminars are conducted to enhance the presentation and communication skills of students.

The Department Quality Assurance Cell (DQAC) approves the course plan for various courses and scrutinizes the question papers submitted for continuous evaluation. Academic Committee monitors the functioning of course committee and class committees. The course committee discusses the conduct of the courses, adherence to the course plans and time schedule, completion of the syllabus and standards of internal tests. Suitable remedial actions regarding the conduct of the course are informed to faculty.

The class committee monitors the conduct of all the courses, overall performance of the students, faculty feedback, placements and industrial visits, and grievances faced by the students and take suitable remedial actions at the appropriate time. For weaker students, remedial classes are conducted after the college working hours.

Mid-term and end term faculty evaluations are taken from students and analysis is carried out for enhancing the teaching skills of the faculty. Attendance of the students is accessible to the parents

through *EazyCampus*. The progress of the final year projects is monitored regularly and the progress report is maintained by the respective guide/project coordinator.

Faculty members are permitted to attend various training programmes at various prestigious institutions like IITs and IIMs to update their knowledge base and improve teaching skills. Stock verification of laboratories is done periodically to identify instruments which require repair or are obsolete. Institute has student chapters of professional societies like IEEE, ISTE, IEI, MEA, IGS, IETE, IChE, CSI to keep pace with research and recent advancements.

1.1.2 Certificate/ Diploma Courses introduced during the Academic year						
Name of the Certificate Course	Name of the Diploma Courses	Date of introduction and duration		focus on employability/ entrepreneurship	Skill development	
NA						
1.2 Academic Flexibility						
1.2.1 New programmes/courses introduced during the Academic year						
Programme with Code		Date of Introduction		Course with Code	Date of Introduction	
NA						
1.2.2 Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the Academic year.						
Name of Programmes adopting CBCS		UG	PG	Date of implementation of CBCS / Elective Course System	UG	PG
Follows university regulations						
Already adopted (mention the year)						
1.2.3 Students enrolled in Certificate/ Diploma Courses introduced during the year						
	Certificate		Diploma Courses			
No of Students						
1.3 Curriculum Enrichment						
1.3.1 Value-added courses imparting transferable and life skills offered during the year						
Value added courses			Date of introduction		Number of students enrolled	
1.3.2 Field Projects / Internships under taken during the year						
Project/Programme Title		No. of students enrolled for Field Projects / Internships				
Internships		It is mandatory for every student to undertake internship and industrial visit.				
1.4 Feedback System						
1.4.1 Whether structured feedback received from all the stakeholders.						
1) Students	2) Teachers	3) Employers	4) Alumni	5) Parents		
Yes. By Evaluation forms, by Course Committees and Class Committees and by random feedback collection	Yes. During Class Committees, Course Committees and feedback collected by DQAC.	Yes. By means of Employer Survey as well as through the feedback collected by CGPU.	Yes. Through Alumni Survey as well as during all the Alumni meetings.	Yes. During PTA meeting as well as during the meeting of Department faculty and parents of students who require special attention.		

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

The institution encourages the practice of obtaining feedback from various stakeholders such as students, alumni, faculty from other institutes, parents and eminent personality from Industry and Government organisations.

The class committee meetings that are held periodically provide a platform for the students to discuss academic and non-academic issues. Parent-teacher meetings are held periodically. Their suggestions are incorporated in improving the curriculum.

The alumni surveys and employer surveys are conducted to give constructive suggestions in improving the curriculum. The valuable suggestions from industrial personnel during meetings/industrial visits, in improving the curriculum needs to match with the needs of the industry are duly communicated to the University. The institute also collects feedback from the recruiters on the performance of the students.

This enables the institution to understand what industry expects from the students and act accordingly.

The college is often visited by academicians all over India and also from abroad. Their views on the curriculum are obtained and efforts are made to incorporate the same. The institution takes part in the curriculum development process through appropriate analysis of feedback given by the various stakeholders from time to time and makes suggestions for modifying curriculum. All the suggestions from various stakeholders are communicated to the University through syllabus committee members, BoS meetings or during syllabus revision.

CRITERION II -TEACHING-LEARNING AND EVALUATION

2.1 Student Enrolment and Profile

2.1.1 Demand Ratio during the year

Name of the Programme	Number of seats available	Number of applications received	Students Enrolled
B.Tech Civil Engineering	120+ upto 5% FWS & upto 15% gulf Quota/PIO	Through government	134
B.Tech Mechanical Engineering	120+ upto 5% FWS & upto 15% gulf Quota/PIO		134
B.Tech Electrical & Electronics Engineering	120+ upto 5% FWS & upto 15% gulf Quota/PIO		134
B.Tech Electronics & Communication Engineering	120+ upto 5% FWS & upto 15% gulf Quota/PIO		128
B.Tech Chemical Engineering	60+ upto 5% FWS & upto 15% gulf Quota/PIO		64
B.Tech Computer Science and Engineering	60+ upto 5% FWS & upto 15% gulf Quota/PIO		70
B.Tech Mechanical Production Engineering	60+ upto 5% FWS & upto 15% gulf Quota/PIO		63
B.Arch Architecture	80*		73
M.Tech Structural Engineering &	18		18

Construction Management			
M.Tech Industrial Refrigeration & Cryogenic Engineering	18		16
M.Tech Electronics - Communication Systems	18		18
M.Tech Computer Science and Engineering	18		18
M.C.A	40		40
M.Tech Mechanical Engineering (Computer Integrated Manufacturing)	18		15
M.Tech –EEE Industrial Instrumentation and Control	24		4
M.Tech EEE- Power System	18		12
* Council of Architecture has sanctioned 73 seats for the year 2017 – 18			

2.2 Catering to Student Diversity

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

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of full time teachers available in the institution teaching only UG courses	Number of full time teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2017-18	800	139	172	11	183

2.3 Teaching - Learning Process

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

Number of teachers on roll	Number of teachers using ICT (LMS, e-Resources)	ICT tools and resources available	Number of ICT enabled classrooms	Number of smart classrooms	E-resources and techniques used
183	165	Smart classroom, e-resources, Seminar hall (Video Conferencing) ,	78	78	e-journal, e-magazine, QEEE, IEEE, NPTEL,

		Language lab, CCF, Eazy campus module, Different Softwares.			Moodle, CEA, CERC, Online assignments
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2.3.2 Students mentoring system available in the institution? Give details. (maximum 500 words)

The college has a very powerful and effective mentoring system (advisory system) to support activities of the students. The advisory system consists of a senior advisor and an advisor for approximately 30 students of each batch. The system helps the students in their academic and personal matters and provides all support in case of any grievance. The advisors maintain good rapport with parents to support such activities. In addition to that, Student Grievance Cell and a Women's Grievance Cell are functioning effectively in the campus to address grievances of students.

The college has appointed a professional counsellor on a regular basis to provide personal support students. Separate Counselling Room is provided for the same. Counselling classes are given to students individually and in groups, to propagate the need to elude from the use of drugs and unhealthy habits. Motivational classes are arranged in association with advisory team for boosting the confidence level of the weaker students. Awareness programmes on rules and regulations of the institute, anti-ragging measures taken by the institute, policies of anti-ragging cell are conducted for the first year students. Group Counselling on public speaking, stress management, CV preparations, effective communication skills are also conducted regularly.

Progress report indicating performance in internal tests, assignments and attendance of all students are uploaded in EazyCampus. The students and parents can get the details by visiting the website making use of their respective user IDs. Progress reports including the University marks are sent to parents. Parents of underperforming students are informed by the faculty advisor over phone and they are directed to meet the HoD and the faculty handling classes. Class-wise PTA meetings are held during each semester and steps to correct and improve performance of the students are thoroughly discussed during the interaction among faculty advisor, HoD, other staff members, parents and students. The same will be implemented and progress is monitored.

In addition to the scholarships given by external agencies, the college also gives an Institute level scholarship known as TKM Merit-Cum-Means scholarship (TKMMCM) for the bright and needy students. This scholarship is given exclusively from a monthly voluntary contribution from the entire staff of the institution. The MCM scheme is to provide financial assistance to the poor and meritorious students to enable them to pursue professional courses.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor: Mentee Ratio
3322	183+46 (Ad-hoc)	1:30

2.4 Teacher Profile and Quality

2.4.1 Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
184	183	1	12	59

2.4.2 Honours and recognitions received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)			
Year of award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2017	Dr. K B Radhakrishnan	Professor	National Council of Indian Institute of Chemical Engineers
2017	Prof. Haritha C	Assistant Professor	26th JK Young Architect of the Year Award: Swami Vivekananda Yuva Pratibha award 2017
2017	Prof Sunitha Beevi K	Assistant Professor	WIE Outstanding Professional Volunteer Award, IEEE Region 10 (Asia Pacific).

2.5 Evaluation Process and Reforms

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

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year- end examination	Date of declaration of results of semester-end/ year- end examination
B. Tech		S1	18/12/2017	16/02/2018
		S3	19/12/2017	08/03/2018
		S5	19/12/2017	28/03/2018
		S7(KU)	20/12/2017	26/03/2018
		S2	19/06/2018	01/08/2018
		S4	29/06/2018	22/08/2018
		S6	17/05/2018	8/10/2018
B. Arch.		S1	18/12/2017	17/05/2018
		S3	15/12/2017	17/05/2018
		S5	29/01/2018	30/08/2018
		S7	Jan 2018 (Jury)	Jan 2018
		S2	10/05/2018	Not published
		S4	10/05/2018	Not published
		S6	June 2018	Not published
		S8	May 2018	Not published
MCA		S1	14/12/2017	18/06/2018
		S3	19/12/2017	18/06/2018
		S5	19/12/2017	11/09/2017
		S6	9/10/2018	1/11/2018
		S2	09/05/2018	12/11/2018
		S4	10/05/2018	17/11/2018

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

The institute has made its own reforms in the evaluation process in the college level. The institute is presently following outcome based evaluation of various Graduate Attributes. For this, the institute has specified POs based on the 12 Graduate Attributes suggested by National Board of Accreditation (NBA). The individual departments in the institute utilize unique set of rubrics for assessing individual POs. Each Course Outcomes (CO) are oriented to match with one of the PO's. For every course, the students are subjected to various Continuous Assessment (CA) procedures, namely, assignments, quizzes, tutorials and class seminars that are evaluated by the faculty-in-charge. Two internal examinations (Series Tests) are also conducted in a semester. CA's are formulated to assess the corresponding CO's. Every semester, students are further evaluated by the University Exam (summative assessment) for maximum marks of 100. The total marks scored for a subject is taken as 150, which is the sum of CA marks (50) and University Exam marks (100). The CA marks for the individual subjects shall be computed by giving weightage to Attendance, Series tests and different assignments. The Department Academic Coordinators are entrusted to collect and consolidate the results from the faculty members. The Continuous Assessment (CA) procedure enlightens the faculty-in-charge about the strengths and weaknesses of the class. This further helps the faculty to suitably modify the course delivery measures, identify the shortcomings in students and gives them an opportunity to improve their skills through various activities.

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

At the beginning of each semester, the academic calendar prepared by the Dean will be presented in the HoD meeting. The approved draft will be discussed further in the departmental meetings and presented in the Department Academic Committee (DAC) /faculty meeting. The approved academic calendar is then published in the college website along with a schedule of internal assessment for each department. The institute develops the academic calendar in line with the calendar published by the University.

2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

www.tkmce.ac.in/Academics/Departments

2.6.2 Pass percentage of students

Programme Code	Programme name	Number of students appeared in the final year examination	Number of students passed in final semester/year examination	Pass Percentage
B.Tech	Civil Engineering	149	132	88.59
B.Tech	Chemical Engineering	74	56	75.67
B.Arch	Architecture	42	41	97.6
B.Tech	Mechanical Engineering	146	142	97.26
B.Tech	Production Engineering	69	50	72.46

B.Tech	Electrical and Electronics Engineering	119	89	74.78
B.Tech	ECE	70	60	85.71
B.Tech	CSE	55	45	81.8
M.Tech	CSE	18	18	100

2.7 Student Satisfaction Survey

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

As per revised guidelines, NAAC will be conducting the SSS from randomly chosen set of students

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 Resource Mobilization for Research

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

Nature of the Project	Duration	Name of the funding Agency	Total grant Sanctioned (Rs.)	Amount received during the Academic year (Rs.)
Major projects	2years	Department of Atomic Energy (BRNS-BAE)	25,15,000.00	18,00,000.00
Minor Projects				
	7months	TEQIP	150000.00	150000.00
	7months	TEQIP	140000.00	140000.00
	1 year	CERD	2,00,000.00	50,000.00
	1 year	TEQIP	1,55,000.00	1,55,000.00
	17-20	KTU CERD	1,90,000.00	1,00,000.00
	17-18	CERD	40,000.00	
	17-18	KSCSTE KTU	25,000.00	25,000.00
	3 years	KTU CERD	2,00,000.00	1,50,000.00
	1 YEAR	KSCSTE, TRIVANDRUM	430000.00	365000.00
Interdisciplinary Projects	3 years	KTU CERD	2,00,000.00	Rs.1,50,000.00
	12 months	TEQIP PHASE – II	1,12,000.00	1,12,000.00
Industry sponsored Projects				
Projects sponsored by the University/ College	1 year	KTU CERD	1,00,000.00	0
	1 year	TEQIP-II seed money project	1,50,000.00	1,12,500.00
Students Research Projects	1 year	KTU CERD	91,000.00	0

<i>(other than compulsory by the College)</i>				
	1 year	APJ Abdul Kalam Technological University –CERD- Student Project	42,500.00	42,500.00
International Projects				
Any other(Specify)	1 year		1,50,000.00	1,50,000.00
Total				

3.2 Innovation Ecosystem

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

Title of Workshop/Seminar	Name of the Dept.	Date(s)
Idea fest	Innovation & Entrepreneur Development Cell (IEDC)	Nov 2017

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

Title of the innovation	Name of the Awardee	Awarding Agency	Date of Award	Category
Automatic Waking Alert To Keep Road Emergencies Down (AWAKE)	Liyana, Anagha Pradeep, Niyas Najeem, Hariprasad and Prof Sunitha Beevi K	Kerala Police	4 th February 2018	Zero Accident Initiative
Automatic Waking Alert To Keep Road Emergencies Down (AWAKE)	Liyana, Anagha Pradeep, Niyas Najeem, Hariprasad and Prof Sunitha Beevi K	IIM Kozhikode	18 th February 2018	Innovation for Social Benefit

3.2.3 No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Centre	Name	Sponsored by
Under process	TKM incubation Centre	Alumni
Name of the Start-up	Nature of Start-up	Date of commencement
Agrivator	Agricultural Automation Product Development	25 September, 2017
Merveille Designs	Online Art Gallery	16 August, 2017

WallTales Media	Service based Media Production Company	3 August, 2017	
Heart for Art	E-commerce platform connecting Art enthusiasts, sellers and consumers	5 March, 2018	
3.3 Research Publications and Awards			
3.3.1 Incentive to the teachers who receive recognition/awards			
State	National	International	
		Review Recognition- Dr. Dili A S (Incentive for reviewing Elsevier Journal- Energy and Building- 1 month free access to Science Direct	
3.3.2 Ph. Ds awarded during the year (<i>applicable for PG College, Research Center</i>)			
Name of the Department		No. of Ph. Ds Awarded	
Architecture		1	
Mechanical		1	
3.3.3 Research Publications in the Journals notified on UGC website during the year			
	Department	No. of Publication	Average Impact Factor, if any
National	Mechanical Engineering	3	
	Maths	2	
Inter-national	Electrical & Electronics Engineering	5	
	ECE	5	
	Maths	3	
	Physics	1	
	Mechanical Engineering	31	
3.3.4 Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year			
Department		No. of publication	
Computer Science and Engineering		14	
Electrical & Electronics Engineering		Books-1 International Conferences-13	
Electronics & Communication Engineering		12	
Mathematics		National Conference Proceedings-2	
Mechanical Engineering		4 (Conference) 2 (Books)	
3.3.5 Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or Pub Med/ Indian Citation Index			

Title of the paper	Name of the author	Title of the journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citations
	P.P. Muhammed Shanir	Clinical EEG and Neuroscience	2018	1.62 (Scopus)	TKM College of Engineering	1
	P.P. Muhammed Shanir	International Journal of Biomedical Engineering and Technology	2018	0.53 (Scopus)	TKM College of Engineering	0
	P.P. Muhammed Shanir	International Journal of Biomedical Engineering and Technology	2017	0.53 (Scopus)	TKM College of Engineering	0
	Sabeena Beevi K	IEEE Journal of Translational Engineering in Health and Medicine	2017	2.54 (Scopus)	TKM College of Engineering	2
	Shargina Beegum, Y.S.Mary, C.Y.Panicker	Spectroscopic, antimicrobial and computational study of novel benzoxazole derivative	September, 2018	-	F.M.N.C., Kollam	
Surfactant-driven direct synthesis of a hierarchical hollow MgO nanofiber – nanoparticle composite by electrospinning	Shijina S Sainudeen, Lakshmi B Asok, Anitta Varghese, A Sreekumar Nair, and Gopi Krishnan	Royal Society of Chemistry Adv.	2017		No	4
A predictive model for salt intrusion in estuaries applied to the Muthupet estuary (India) and Bouregreg estuary (Morocco)".	Dr.K.L.Priya, Dr.Adarsh S.	ISH Journal of Hydraulic Engineering	2018			
Developing hourly intensity duration frequency curves for urban areas	Dr.Adarsh S.	Stochastic Environmental Research and Risk Assessment	2018			

in India using multivariate empirical mode decomposition and scaling theory						
Developing Short Term Drought Severity-Duration-Frequency Curves for Kerala Meteorological Subdivision, India Using Bivariate Copulas”	Dr.Adarsh S.	Korean Society of Civil Engg KSCE Springer	2018			
Multiscale characterization and prediction of monsoon rainfall in India using Hilbert–Huang transform and time-dependent intrinsic correlation analysis."	Dr.Adarsh S.	Meteorology and Atmospheric Physics Springer	2017			
Investigating the multiscale variability and teleconnections of extreme temperature over Southern India using the Hilbert–Huang transform"	Dr.Adarsh S.	Modeling Earth Systems and Environment	2017			
Degradation Kinetics of Cement-based Materials in Citric Acid",	Dr. K.P. Ramaswamy	Recent Advances in Structural Engineering, Volume 1, Lecture Series in Civil Engineering	2018			
Acid-related Factors Affecting the Degradation	Dr. K.P. Ramaswamy	International Journal of Engineering and Advanced Technology	2017			

Kinetics of Cement-based Materials						
Thermal response of Moroccan lakes to climatic warming: first results;	Dr.K.L.Priya	International Journal of Limnology	2018			
Evaluation of rutting potential of asphalts using resilient modulus test parameters, Road materials and Pavement design,	Dr.Vishnu R.	http://dx.doi.org/10.1080/14680629.2017.1374998	2017			
Evaluation of wheel tracking and field rutting susceptibility of dense bituminous mixes, Road materials and Pavement design,	Dr.Vishnu R.	http://dx.doi.org/10.1080/14680629.2017.1374998	2017			
	Krishnakumar T.S	International Journal of Refrigeration (Elsevier-SCI Indexed)	2018			3
	Aju kumar V N	International Journal of System Assurance & Engineering Management, DOI: 10.1007/s13198-018-0753-6	2018		TKM College of Engineering, Kollam	
	Jose Prakash M	Journal of Mechanical Science and Technology, Springer	2017	1.4	Dept. of Mechanical Engg. TKM College of Engineering	2

	Jose Prakash M	Frontiers in Heat and Mass Transfer	2017	1.3	Dept. of Mechanical Engg. TKM College of Engineering	2
	Jose Prakash M	IEEE Transactions on Components, Packaging and Manufacturing Technology	2018	2.8	Dept. of Mechanical Engg. TKM College of Engineering	2
	Jose Prakash M	International Journal of Refrigeration, Elsevier	2018	3.5	Dept. of Mechanical Engg. TKM College of Engineering	3
	Jose Prakash M	International Journal of Refrigeration, Elsevier	2018	3.5	Dept. of Mechanical Engg. TKM College of Engineering	3
	Jose Prakash M	International Journal of Refrigeration, Elsevier	2018	3.5	Dept. of Mechanical Engg. TKM College of Engineering	2
	Jose Prakash M	International Journal of Refrigeration, Elsevier	2018	3.5	Dept. of Mechanical Engg. TKM College of Engineering	3
	Jose Prakash M	Journal of Molecular Liquids, Elsevier	2018	4.6	Dept. of Mechanical Engg. TKM College of Engineering	3
	Jose Prakash M	Frontiers in Heat and Mass Transfer	2018	1.3	Dept. of Mechanical Engg. TKM College of Engineering	2
	Jose Prakash M	Powder Technology, Elsevier	2018	3.2	Dept. of Mechanical Engg. TKM College of Engineering	2
	S Jose	International Journal of Scientific & Engineering Research	2017		Dept. of Mechanical Engg. TKM College of Engineering	

	S Jose	International Journal of Engineering and Advanced Technology	2017		Dept. of Mechanical Engg. TKM College of Engineering	
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3.3.6 h-index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the paper	Name of the author	Title of the journal	Year of publication	h-index	Number of citations excluding self citations	Institutional affiliation as mentioned in the publication
Automatic Seizure Detection Based on Morphological Features Using One-Dimensional Local Binary Pattern on Long-Term EEG	Muhammed Shanir P P	Clinical EEG and Neuroscience	2018	1	1	TKM College of Engineering
A Multi-Classifer System for Automatic Mitosis Detection in Breast Histopathology Images Using Deep Belief Networks	Sabeena Beevi	IEEE Journal of Translational Engineering in Health and Medicine	2017	2	2	TKM College of Engineering
Surfactant-driven direct synthesis of a hierarchical hollow MgO nanofiber – nanoparticle composite by electrospinning	Shijina S Sainudeen, Lakshmi B Asok, Anitta Varghese, A Sreekumar Nair, and Gopi Krishnan	Royal Society of Chemistry Adv.	2017		4	No
Nanorefrigerants for energy efficient refrigeration systems	Jose Prakash M	Journal of Mechanical Science and Technology, Springer	2017	8	2	Dept. of Mechanical Engg. TKM College of Engineering
Effect of aspect ratio on supercritical heat transfer if cryogenic methane in rocket engine cooling channels	Jose Prakash M	Frontiers in Heat and Mass Transfer	2017	8	2	Dept. of Mechanical Engg. TKM College of Engineering
Experimental and Numerical Analysis of Multiple Jets Impingement Cooling	Jose Prakash M	IEEE Transactions on Components,	2018	8	2	Dept. of Mechanical Engg.

for High Power Electronics		Packaging and Manufacturing Technology				TKM College of Engineering
Experimental studies on thermal and rheological properties of Al ₂ O ₃ -ethylene glycol	Jose Prakash M	International Journal of Refrigeration, Elsevier	2018	8	3	Dept. of Mechanical Engg. TKM College of Engineering
Experimental studies on thermal and rheological behaviour of TiO ₂ -PAG nanolubricant for refrigeration system	Jose Prakash M	International Journal of Refrigeration, Elsevier	2018	8	3	Dept. of Mechanical Engg. TKM College of Engineering
An overview of experimental studies on nanorefrigerants: Recent research, development and applications	Jose Prakash M	International Journal of Refrigeration, Elsevier	2018	8	2	Dept. of Mechanical Engg. TKM College of Engineering
Effect of Oxide Nanoparticles on the Thermal, Rheological and Tribological Behaviours of Refrigerant Compressor Oil; An Experimental Investigation	Jose Prakash M	International Journal of Refrigeration, Elsevier	2018	8	3	Dept. of Mechanical Engg. TKM College of Engineering
Experimental investigation on thermal and rheological behaviour of PAG lubricant modified with SiO ₂ nanoparticles	Jose Prakash M	Journal of Molecular Liquids, Elsevier	2018	8	3	Dept. of Mechanical Engg. TKM College of Engineering
Heat transfer deterioration effects of cryogenic Methane in rocket engine cooling channels	Jose Prakash M	Frontiers in Heat and Mass Transfer	2018	8	2	Dept. of Mechanical Engg. TKM College of Engineering
Thermal and rheological characteristics of refrigerant compressor oil with						

alumina nanoparticles—An experimental investigation						
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No. of Faculty	International level	National level	State level	Local level
Attended Seminars	0	2	3	6
Workshops	5	20	56	4
Presented papers	31	6	1	2
Resource Persons	5	4	6	0

3.4 Extension Activities

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

Title of the Activities	Organising unit/ agency/ collaborating agency	Number of teachers co-ordinated such activities	Number of students participated in such activities
Notebook	Sanchari	4	75
Medical camp	JCI Quilon	4	20

3.4.2 Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the Activity	Award/recognition	Awarding bodies	No. of Students benefited
Punarjjani 17-Special Camp	Appreciation award	NSS Technical Cell,Kerala	130
Mega Blood Donation Camp	Blood donation camp supported by District Hospital Kollam	District Hospital Kollam	500
	Best NSS Volunteer in the Directorate Level	NSS Technical Cell,Kerala	1

3.4.3 Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/ agency/ collaborating agency	Name of the activity	Number of teachers coordinated such activities	Number of students participated in such activities
	NSS TKMCE	Swachhta Pakwara-Campus Cleaning,Cleaning	4	75

		Kollam Bus Stand and Central library		
	NSS TKMCE	A motivational talk for Mahilamandiram inmates	4	10
	Tourism Corporation	Green Carpet Programme	4	75
	Sanchari	Notebook	4	
	Kollam City Police and Lions Club Kollam	A session on Anti-drug and sexual abuse prevention.	4	160
	JCI Quilon	Medical Camp	4	20
	TRACK	Accident and Emergency Management Training	4	75
Swachh Bharat Summer Internship	Central Govt	Door to Door visit, awareness campaign, Solid waste management activities	14	285

3.5 Collaborations

3.5.1 Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of Activity	Participant	Source of financial support	Duration
Research Collaboration and Student Internship	PG students	EMS Group, University of Twente, Netherlands	Since 2015 June
Collaborative Research In Cryogenics	UG/PG Students	DST	Since 2015

3.5.2 Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration (From-To)	participant
Internship	Internship	Keltron	4/7/ 2017-8/7/2017	22
Internship	Internship	Indian Rare Earth Ltd	17/7/2017-21/7/2017	1

Linkage with institutions (student Internship)	IoT- Bio Camp 2018	Centre for Innovation in Engineering Education Kookmin University Seoul Republic of Korea	July 10-11, 2018	Deepika Krishna (outstanding performance)
Linkage with institutions (student Internship)	Student Internship program	College of Creative Engineering Kookmin University Seoul	June 28-August 12	Athira Manikandan
Research Collaborati on and Student Internship	Collaborative Research In Superconductiv ity	EMS Group, University of Twente, Netherlands	2015 onwards	Dr. Rijo Jacob Thomas & Dr. Jose Prakash M.
Research Collaborati on and Student Internship	Collaborative Research In Cryogenics	Centre for Cryogenic Technology, IISc Bangalore	2015 onwards	Dr. Rijo Jacob Thomas, Dr. Mathew Skaria & Dr. K.A. Shafi

3.5.3 MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose and Activities	Number of students/teachers participated under MoUs
Kookmin University, Seoul Republic of Korea	19/ 01/ 2018	Student internship and collaborative research	All students of college
University of Wisconsin-Parkside, USA	10/ 03/ 2018	Student internship and collaborative research	All students of college

CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

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

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
2,42,60,000.00	1,91,57,477.00

4.1.2 Details of augmentation in infrastructure facilities during the year

Facilities	Existing	Newly added
Campus area	60120m2	-
Class rooms	70	2
Laboratories	61	-
Seminar Halls	5	1
Classrooms with LCD facilities	70	2
Classrooms with Wi-Fi/ LAN	70	2
Seminar halls with ICT facilities	5	1

Video Centre	4	1
No. of important equipments purchased (\geq 1-0 lakh) during the current year.		
Value of the equipment purchased during the year (Rs. in Lakhs)		
Others		

4.2 Library as a Learning Resource

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

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation
KOHA	Fully	3.16.09	2014

4.2.1 Library Services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	81068	-	1468	675686	82536	-
Reference Books	5844	-	91	147573	5935	-
e-Books	511	186208	401	292897	912	454937
Journals	114	199197	26	53438	140	252635
e-Journals	7 packages	1691624	-	-	7 package	1473877
Digital Database	4 packages	174041	-	-	4 package	177911
CD & Video	400	Gift	65	Gift	465	Gift
Library automation	-	-	-	-	-	Koha (Open Source)
Weeding (Hard & Soft)	-	-	-	-	-	1205(Hard)
Others (specify)	-	-	-	-	-	

4.3 IT Infrastructure

4.3.1 Technology Upgradation (overall)

	Total Computer s	Computer Labs	Internet	Browsing Centres	Computer Centre s	Office	Department s	Available band width (MGBPS)	Others
Existing	904	664	904	25	128	25	62	200	
Added	46	39	46	2	0	5	0	200	
Total	950	703	950	27	128	30	62	200	

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

200 Mbps (1:1)			
4.3.3 Facility for e-content			
Name of the e-content development facility		Provide the link of the videos and media centre and recording facility	
Faculty develops in college		Under plans by Teaching & Learning Centre	
4.3.4 E-content developed by teachers such as: e-PG-Pathshala, CEC (under e-PG-Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc			
Name of the teacher	Name of the module	Platform on which module is developed	Date of launching e - content

4.4 Maintenance of Campus Infrastructure

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

Assigned budget on academic facilities (Rs.)	Expenditure incurred on maintenance of academic facilities (Rs.)	Assigned budget on physical facilities (Rs.)	Expenditure incurred on maintenance of physical facilities (Rs.)
17530000	12493727	9008000	4395127

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

The annual budget and allocation of funds for regular monitoring of utilization of funds for maintenance ensures the upkeep of the infrastructure in the institute. The college has an Infrastructure Committee which is assigned the task of maintenance and upkeep of the infrastructure. Each department has representatives in it. The day to day maintenance of the general infrastructure is done by a Facilities Management Committee. Each laboratory is under a lab-in-charge and assistant-lab-in-charge. The technical staff of the laboratory performs the duty of maintenance and upkeep of equipments of each lab under the supervision of the lab-in-charge. Annual stock verification of all the equipments of the college is done by a committee appointed by the Principal for that purpose. The campus networking centre is maintaining the IT services for all the stake holders of the college.

Facilities Management Committee (FMC)

The FMC has Engineering Cell, Cleanliness Cell and an Engineering and Cleanliness Help Desk under it. The FMC has a Chief Coordinator and separate coordinators for each engineering division. The important duties entrusted to the Chief Co-ordinator of FMC are Operation Management of Engineering & Cleanliness Cell and Annual Budget Preparation. The Chief Coordinator of FMC reports to the head of Institution. The FMC will be in charge of all facilities and it will be conducting scheduled routine inspection and monitoring of department facilities such as smart classrooms, tutorial rooms, seminar rooms, labs workshops, etc. Any complaints reported, will be inspected and appropriate actions will be taken to resolve it. The Chief Coordinator has been entrusted to make a proposal for future planning/preventive maintenance and cleanliness. There is a faculty in-charge from each department who will be working in coordination with the Chief Coordinator of FMC.

For the proper functioning of all activities during the time of power failures, adequate measures have been taken. Generators of specifications 200KV and 30KV are available in the institute, which helps in maintaining continuous power supply without any hindrance to ensure that there is an uninterrupted conduct of the academic activities in the smart class rooms of the college during such situations. A new generator has been setup near the new Mechanical block, of capacity 200KV. There is a centralized UPS system to ensure that all the computer laboratories, sensitive equipments in all labs and seminar halls in each department. All the departments with computer laboratory facility have their own UPS. Timely monitoring is done to ensure that the systems and the batteries are working well. The Lab-in-Charge concerned is entrusted with this job. The electrical works section under FMC works in co-ordination with the Department of Electrical and Electronics Engineering for proper guidance. The rain water harvesting system in the college ensures continuous availability of water in the dug wells and thereby ensures constant supply of water in the college. Web link: www.tkmce.ac.in/other-facilities

CRITERION V - STUDENT SUPPORT AND PROGRESSION

5.1 Student Support

5.1.1 Scholarships and Financial Support

	Name /Title of the scheme	Number of students	Amount in Rupees
Financial support from institution	TKM Merit Cum MEANS Scholarship	154	23,16,000.00
Financial support from other sources			
a) National	Merit Cum Means (Ministry of Minority Affairs)	335	7917471.00
	Egrantz SEBC	483	5581550
	Egrantz FC	141	Sanctioned, Awaiting Funds
	Egrantz SC	217	8157910.00
	Egrantz ST	16	791334.00
	Egrantz OEC	209	7890476.00
	Prime Minister's Scholarship	9	222000.00
	Jammu & Kashmir PMSS Scholarship	3	37225.00
	Centre Sector Scholarship	59	590000.00
	Snehapoorvam	15	Awaiting Funds
	Fisheries	4	183225.00
	Lakshadweep Scholarship	21	Sanctioned
	Arunachal Pradesh Scholarship	13	Sanctioned
	Andaman And Nicobar	10	Sanctioned
	IOCL	5	180000.00
	C H Mohammed Koya Scholarship	5	Sanctioned
	POST MATRIC Scholarship For Students with Disability	1	27775.00
	Mizoram Scholarship	3	Sanctioned

b) International	KEAN	7	\$1,750		
	OMKHARAN	1	\$500		
5.1.2 Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,					
Name of the capability enhancement scheme		Date of implementation	Number of students enrolled	Agencies involved	
Workshop on Mix design of Concrete		4/11/17	27	India Cements Ltd	
STAAD PRO V8		8/11/2017	25	InterCAD systems pvt. Ltd.	
Workshop on An Introduction to QGIS.		23/7/2018 to 28/7/2018	152	Kerala State IT Mission	
Talk on Employability skills and Career Guidance		7/8/2018	138	Green Ready Made Steel Private Ltd	
Career Orientation Programme		9/8/2018	152	CGPU,TKM College of Engineering	
Soft skills and Aptitude Test Training programme		14-16 /8/2018	138	Pragmatics	
GATE Coaching class		3/9/2018	44	Department of Civil Engineering, TKM College of Engineering	
5.1.3 Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year					
Year	Name of the scheme	Number of benefited students by Guidance for Competitive examination	Number of benefited students by Career Counselling activities	Number of students who have passed in the competitive exam	Number of students placed
	Every student of the college gets the benefit of career guidance and counselling				Details in 5.2.1
5.1.4 Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year					
Total grievances received		No. of grievances redressed		Average number of days for grievance redressal	
1		1		5	
5.2 Student Progression					
5.2.1 Details of campus placement during the year 2017-18					
On campus			Off Campus		
Name of Organizations Visited	Number of Students Participated	Number of Students Placed	Name of Organizations Visited	Number of Students Participated	Number of Students Placed

FLY TXT- R&D DIVISION	1	1	AF Constructions	5	3
QBURST	29	1	Nechupadam Constructions	2	1
MALAYALA MANORAMA	53	1			
TRIASSIC SOLUTIONS	83	1			
ZOHO	153	1			
AGILE CONSULTING	164	1			
GES INFOTECH	57	2			
GO DIGIT	145	2			
SUN TEC	25	3			
ALLGO	39	3			
EXPERION TECHNOLOGIES	41	3			
VVDN	106	3			
ENVSTNET	204	3			
FLEET MANAGEMENT	27	4			
TRAVANCORE ANALYTICS	64	4			
CERIUM SYSTEMS	66	4			
HODO MEDICAL INFORMATC SOLUTIONS	118	4			
INDIAN OIL-ADANI	154	4			
LARSEN & TOUBRO	163	4			
NOKIA	49	5			
IBS SOFTWARES	91	5			
TATA COMMUNICATIONS	26	6			
FLYTXT	57	6			
FEDERAL BANK	40	6			
BYJU'S	150	7			
TATA ELXSI	52	8			
QUEST GLOBAL	55	8			
MRF TYRES	140	14			
TRIANGLE TELEINCORPORATIONS	189	15			
SUTHERLAND	164	31			
TCS	304	88			
DEZIRE CONSTRUCTIONS	1	4			

5.2.2 Student progression to higher education in percentage during the year 2017-18					
Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of Programme admitted to
2017	4	CSE	CSE	TKM College of Engineering	M.Tech CSE
		CSE	CSE	NIT SURATKAL	M.Tech CSE
		CSE	CSE	CONESTOGA COLLEGE	Canada-PG
		CSE	CSE	SCT College	M Tech
	28	Electrical and Electronics Engineering	Electrical and Electronics Engineering	NIT Calicut	M.Tech, Instrumentation & Control Systems
		Electrical and Electronics Engineering	Electrical and Electronics Engineering	NIT Trichy	M. Tech Power Systems
		Electrical and Electronics Engineering	Electrical and Electronics Engineering	NIT Surathkal	M. Tech Power & Energy Systems
		Electrical and Electronics Engineering	Electrical and Electronics Engineering	College of Engineering, Trivandrum	M. Tech Power Systems
		Electrical and Electronics Engineering	Electrical and Electronics Engineering	NIT Calicut	M.Tech Power Electronics
		Electrical and Electronics Engineering	Electrical and Electronics Engineering	College of Engineering, Trivandrum	M. Tech Robotics & Automation
		Electrical and Electronics Engineering	Electrical and Electronics Engineering	College of Engineering, Trivandrum	M. Tech Control Systems
	15	ECE	ECE	NIT Calicut University of Dublin Aachen University, Germany	M.Tech MBA MSc

		ECE	ECE	NIT, Trichy Central University, Pondicherry Saint Mary's University, Halifax, Canada	MS M.Tech MBA
	11	Chemical Engineering	Chemical Engineering	The University of Manchester, UK	M.S
		Chemical Engineering	Chemical Engineering	The University of Edinburgh, UK	M.S
		Chemical Engineering	Chemical Engineering	IIT bombay	M.Tech
		Chemical Engineering	Chemical Engineering	IIT Kharagpur	M.Tech
		Chemical Engineering	Chemical Engineering	IIT Madras	M.Tech
		Chemical Engineering	Chemical Engineering	NIT Surathkal	M.Tech
		Chemical Engineering	Chemical Engineering	NIT Surathkal	M.Tech
		Chemical Engineering	Chemical Engineering	Loughborough University	M.Tech
		Chemical Engineering	Chemical Engineering	ECU University, Australia	M.Tech
		Chemical Engineering	Chemical Engineering	NIT Thiruchirappalli	M.Tech
		Chemical Engineering	Chemical Engineering	Manipal University, Dubai	M.Tech
	11	Planning	Planning	GEC, Thrissur CEPT, Ahmedabad	Urban Planning
		Architecture	Architecture	College of Engineering, Trivandrum School of Planning and Architecture	Urban Design Landscape architecture
		M.Tech	M.Tech	NICMAR, Hyderabad	Constructio n

					Managem nt
	36	CivilEngg.	CivilEngg.	IISc,Bangalore	M.Tech
		CivilEngg.	CivilEngg.	IIT Madras	M.Tech
		CivilEngg.	CivilEngg.	california state university	MS
		CivilEngg.	CivilEngg.	Heriot watt university dubai	MS
		CivilEngg.	CivilEngg.	IIT Roorkee	M.Tech
		CivilEngg.	CivilEngg.	IIT Bombay	M.Tech
		CivilEngg.	CivilEngg.	NIT,Warangal	M.Tech
		CivilEngg.	CivilEngg.	NIT,Trichy	M.Tech
		CivilEngg.	CivilEngg.	NICMAR	M.Tech
		CivilEngg.	CivilEngg.	IIT Hyderabad	M.Tech
		CivilEngg.	CivilEngg.	SYMBIOSIS ,PUNE	M.Tech
		CivilEngg.	CivilEngg.	NIT,Nagpur	M.Tech
		CivilEngg.	CivilEngg.	NIT,Guwahati	M.Tech
		CivilEngg.	CivilEngg.	NIT,Calicut	M.Tech
	6	MECHANICAL	MECHANICAL	IIT MADRAS	AEROSPA CE ENGINEE RING
		MECHANICAL	MECHANICAL	IISC BANGLAORE	MASTERS IN DESIGN
		MECHANICAL	MECHANICAL	NIT TRICHY	MS IN MECHANI CAL ENGINEE RING
		MECHANICAL	MECHANICAL	UNIVERSITY OF OTTAWA	MS
5.2.3Students qualifying in state/ national/ international level examinations during the year (eg: NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)					
Items		No. of Students selected/ qualifying		Registration number/roll number for the exam	
NET					

SET		
SLET		
GATE	48	CS18S37069021, G362G28,G576A23,G238W1 4,CS18S37056096, EE18S6704, CH18S47064063,CH18S421 08077, CH18S47073178,CH18S470 56082, CE18S77056034, CE18S77054037, CE18S77057055, CE18S77055056, CE18S77055077, CE18S77056097, CE18S77055122, CE18S77056090, ME18S11307058 ME17S17040110 ME17S27030059,
GMAT	2	
CAT	2	
GRE	10	0300084542
TOFEL	10	
Civil Services	1	
State Government Services		
Any Other		
Note: Lot many more students have qualified GATE, GMAT, CAT, GRE, TOFEL and State Government Services. The exact data could not be obtained from most of the passed out students. Only the data communicated to the college are presented here.		
5.2.4 Sports and cultural activities / competitions organised at the institution level during the year		
Activity	Level	Participants
Kerala University North-Zone Football Men Championship 3rd to 30th October 2017	University	
Kerala University North zone Shuttle badminton Men championship, 10th to 14th October 2017	University	
Kerala University Judo Men & Women championship, 21st & 22nd December 2017	University	
Kerala Technological University Tennis Men & Women Championship, 29th November 2017	University	
Kerala Technological University Inter zone Football Men championship, 24th to 26th November 2017	University	
Kerala Technological University Chess Men & Women championship, 12th & 13th September 2017	University	
Kerala Technological University Basket Ball Women championship, 14th October 2017	University	
Annual Athletic meet, 6 th and 7 th April 2018	College	
Asokan memorial Basketball Tournament, 1 to 4 February 2018	College	

II Benny memorial Cricket tournament, 10 and 11 February 2018	College	
Inter branch tournament, 1-30, January 2018	College	
Kerala University women football championship 27 and 28 January 2018	University	
Beginners coaching camp, March 2018	College	

5.3 Student Participation and Activities

5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/ medal	National/ International	Sports	Cultural	Student ID number	Name of the student
2017 (EEE)	Best NSS Volunteer at State Directorate Level 2017-2018	State				Vaishak V
2017-18 (Chemical)	Bronze Medal in Para National Taekwon – Do Championship	National	Yes		TKM15CH063	Sujina S Babu
2017-18 (Chemical)	Represented Kerala in Javelin, 18th Para National Athletic Championship	National	Yes		TKM15CH063	Sujina S Babu
2015-16 (Arch) 2017-18 (Arch)	Inter university Judo Championship	National	Judo		130065	Akheel
2017 (Arch)	University Chess Championship	State Level	Chess Championship			Haritha N

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

Every year students elect their representatives to form the College Students Union and their respective association secretaries through the college union election. The college provides a college union fund, which is collected from the students for the union activities along with the first instalment of tuition fees at the beginning of each academic year and the same is credited to the college union fund. The college

union has an Executive Committee consisting of:

- Chairman
- Vice-Chairman
- General Secretary
- Representative to the University Union (Two Members)
- Editor of the College Magazine
- Arts Club Secretary
- Secretary of Sports
- One member representing the students of each year elected by the students of respective year among themselves

- Two lady representatives elected by the lady students of the college from among themselves.
- One member representing the students belonging to the SC/ST, to be nominated by the Executive Committee, in case of none of the elected members belong to SC/ST
- Honourable Treasurer and Staff Advisor(Ex-officio)

In addition, they select the representatives and office bearers of Students Welfare Committee and Student's Affairs Committee.

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

- (a) Internal Quality Assurance Cell (IQAC)
- (b) College Union
- (c) Course Committee
- (d) Hostel Management Committee (HMC)
- (e) Students Welfare Committee (SWC)
- (f) Students Affairs Committee (SAC)
- (g) National Service Scheme (NSS)
- (h) Career Guidance and Placement Unit (CGPU)
- (i) Students Grievance Cell
- (j) Women Cell
- (k) Library Council
- (l) Energy Management Cell
- (m) Environment Management Cell

5.3 Alumni Engagement

5.3.1 Whether the institution has registered Alumni Association? Yes/No

If yes, give details (maximum 500 words):

Yes. The institution has an active alumni association. The college convenes regular meetings of the alumni association and they actively participate in various activities of the college. Former teachers are also invited for the Annual get together function (held annually on January 26th), which is organized as a tribute to the retiring faculty towards the end of each academic year. The families of most of the former and present teachers of this college attend this grand function. Every year, Alumni Day is celebrated on 26th January, inviting former faculties and students of the college. This is an ideal occasion for collecting feedbacks from stakeholders. Retired faculties keep in touch with the college by delivering lectures to the students on request. Alumni chapters are formed at various locations of India and abroad, such as USA, UAE, Sultanate of Oman, Kuwait, Singapore and Tanzania. During the annual meetings of these chapters, the TKM Trust Chairman, Members of Trust and Principal are invited. Dr. Mohammed Sadhikh, Professor, is functioning as faculty-in-charge of alumni relations.

5.3.2 No. of registered/enrolled Alumni: 609 (in the year 2017)

5.3.3 Alumni contribution during the year 2017-18 (in Rupees) : Rs. 29,09,74/-

5.3.4 Meetings/activities organized by Alumni Association :

Annual General Body meeting was held on 26th January 2018. A good number of alumni with their families attended the AGM. Election was conducted and new office bearers were elected for the year 2018-2019. Executive meetings were held as and when required to discuss and chalk out the

future programmes of the association. Alumni meetings were also organized by local chapters of USA, UAE, Singapore, etc in respective countries.

CRITERION VI –GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

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

The following points may be noted with regard to the operational autonomy of individual departments:

- The Department is headed by the HoD, who is assisted by the Academic Coordinator in curricular matters.

- The Department Management Committee (DMC) is an active body in the department to decide on important academic and disciplinary matters.

- The Department prepares the budget and submits for the approval from Central Planning Committee.

- The Departments are given a corpus fund for their emergency expense and the HOD has the power to decide the expenditure.

- Each laboratory is managed by two faculties who function as the lab-in-charge and assistant-lab-in-charge. Technical staff is also allotted to each lab.

- Each batch of students has a Senior Advisor and four/ five junior advisors, to support the curricular and personal matters. The Senior Advisor, through Class Committee Meetings, also ensures that the classes are conducted well.

- Feedback from staff and students are collected through various forums to decide electives to be offered, to improve the quality of the classes, industrial interactions etc. and corrective actions are taken, if needed.

- Co-curricular and extra-curricular activities function through clubs/ committees/ cells/ chapters and enjoy autonomy in their operations.

The Career Guidance and Placement Unit (CGPU) was restructured with more involvement from the individual academic departments. A four tier structure was designed with more participation from the Management, Department and students.

6.1.2 Does the institution have a Management Information System (MIS)?

Yes/No/Partial: Yes

6.2 Strategy Development and Deployment

6.2.1 Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

❖ Curriculum Development :

- The syllabus an curriculum designed by Kerala Technological University (KTU) is followed.

- The senior faculty play major role in KTU committees for syllabus revision.

❖ Teaching and Learning :

- Internship in reputed institutes and industries

- The course committee evaluation of teaching- learning process.

- Evaluation of teachers by students.

- Remedial classes for students.

<ul style="list-style-type: none"> ➤ Feedback from stakeholders. ➤ Students participation in conferences, workshops, technical fests organized by other institutes and professional societies. ➤ Study tours or industry visits for learning beyond the curriculum. ➤ Professional society activities ➤ The institute impart quality education by encouraging e-learning facility through NPTEL lectures, QEEE classes etc. ➤ Learning through FAB Lab and activities of Innovation & Entrepreneur Development Cell
<ul style="list-style-type: none"> ❖ Examination and Evaluation: <ul style="list-style-type: none"> ➤ The internal tests are conducted by th institution as per the guidelines of KTU. ➤ The end semester examinations are conducted by KTU at the institution
<ul style="list-style-type: none"> ❖ Research and Development: <ul style="list-style-type: none"> ➤ Promote research by faculty under QIP at premier institutes. ➤ Part-time research at KTU. ➤ MoU with industries and research organizations. ➤ Infrastructure developments from various funds (MODROBS, RPS, DST/ISRO Projects). ➤ Well-equipped library with e-learning facility.
<ul style="list-style-type: none"> ❖ Library, ICT and Physical Infrastructure / Instrumentation:
<ul style="list-style-type: none"> ❖ Human Resource Management: <ul style="list-style-type: none"> ➤ Recruitment of faculty and staff by an interview board consisting of members representing Kerala Government, University, External Subject Expert chosen by Directorate of Technical Education, Management etc., as per the guidelines of AICTE. ➤ Career advancement policies framed by the Government of Kerala. ➤ Pay revisions as per the norms laid down by AICTE and Government of Kerala. ❖ Community Management <ul style="list-style-type: none"> ➤ National Service Scheme (NSS) activities. ➤ Professional organizations like IEEE support in developing community projects for the benefit of the isolated settlements. ➤ Camps in association with STEPS- a student group for the empowerment of the society
<ul style="list-style-type: none"> ❖ Industry Interaction / Collaboration : <ul style="list-style-type: none"> ➤ Expert lectures by industry personnel. ➤ Projects of students guided by industry experts. ➤ Industry related issues solved as projects by students and faculty. ➤ Students' internship in industries and reputed institutions. ➤ Testing centre/ Research centre funded by industries. ➤ Continuous industry linkage by CGPU for career guidance activities.
<ul style="list-style-type: none"> ❖ Admission of Students : <ul style="list-style-type: none"> ➤ The strategy followed is that prescribed by the State Government.
6.2.2 : Implementation of e-governance in areas of operations:
❖ Planning and Development
❖ Administration
❖ Finance and Accounts
❖ Student Admission and Support
❖ Examination

6.3 Faculty Empowerment Strategies

6.3.1 Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year 2017-18

Year	Name of teacher	Name of conference/ workshop attended for which financial support provided	Date	Amount of support
2017-2018	Prof Mohammed Asim	International conference on Construction, Real estate, Infrastructure and project management at NICMAR, Pune	10.11.2017 to 11.11.2017	19403
	Dr Anu V Thomas	International conference on Construction, Real estate, Infrastructure and project management at NICMAR, Pune	10.11.2017 to 11.11.2017	17924
	Prof Muhammedali Shafeeq	GIAN course on Intelligent Power Grids, NIT, Trichi	27.11.17 to 01.12.2017	8385
	Prof Arun L	GIAN course on Intelligent Power Grids NIT, Trichi	27.11.17 to 01.12.2017	8385
	Dr Sheeba O, Prof Heera Karunakaran	GIAN Course on Key enabling technologies for 5 G Wireless networks NIT, Calicut	08.12.2017 to 13.12.2017	24352
	Prof Nishanth N	GIAN Course on Key enabling technologies for 5 G Wireless networks, NIT, Calicut	08.12.2017 to 13.12.2017	11622
	Prof Sofia S	Attend National Workshop on OPAL-RT & DSPACE for HLL applications at NIT, Calicut	04.12.2017 to 8.12.2017	8874
	Dr Anitha Joseph & Dr Sudhy	Training programme on Vibro- acoustics, IIT, Bombay	04.12.2017 to 8.12.2017	25476

	Mary Kurian			
	Prof Shan S	Attend GIAN course on Immersed boundary methods for turbulent Incompressible Flows IIT Kharagpur	18.12.2017 to 22.12.2017	21984
	Prof Fazil A	GIAN course on Redox flow batteries for electrical energy storage IIT, Delhi	01.12.2017 to 14.12.2017	41816
	Prof Adarsh S	International Conference on Sustainable technologies for Intelligent Water Management at IIT, Roorkee	16.01.2018 to 18.02.2018	32528
	Dr Priya K L	International Conference on Sustainable technologies for Intelligent Water Management at IIT, Roorkee	16.01.2018 to 18.02.2018	32528

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

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	Dates (from-to)	No. of participants (Teaching staff)	No. of participants (Non-teaching staff)
2017-2018	FDP on Artificial Intelligence for Biomedical Applications		11/12/2017 to 16/12/2017	60	
	International conference on Modelling & Simulation in civil Engineering.		13.12.2017 to 15.12.2017	44	
	FDP on Machine learning with R		9.01.2017 to 15.01.2017	56	
	Three day Workshop on Android Application Development		20.12.2017 to 22.12.2017	42	
	Workshop on power electronics & Drives		04.01.2017 to 05.01.2018	30	

	FDP on computer network Challenges & implementation		22.01.2018 to 27.01.2018	60	
	Two day Workshop on Python Programming		23.12.2017 to 24.12.2017	10	
		Workshop on Refrigeration and Air conditioning Systems	25-07-2018		19

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

Title of the professional development programme	Number of teachers who attended	Date and Duration (from – to)
Faculty Development Programme on "Introduction to Matlab, Simulink and GUI", by National Institute of Technical Teachers Training and Research, Kolkata (NITTTR-K)	3	24/07/17 to 28/07/17(5 days)
Document Preparation using LATEX Organized by Department of Electrical Engineering ,CET	3	10/07/17 to 15/07/17(5 days)
National Level Workshop on “Simulation and Emulation of Self Organized Networks (SEASON -2017)”Department of ECE, Kongu Engineering College, Erode	2	14/09/17 to 16/09/17 (3 days)
AICTE Sponsored Short Term Course On Machine Learning: Trends, Perspective & Prospects, organized by Department of Computer Science and Engineering, Indian Institute of Technology (BHU) Varanasi	1	18/09/17 to 23/09/17 (6 days)
Short term course on “Introduction to Cryptography” Department of CSE, NIT Trichy	1	01/11/17 to 05/01/17 (5 days)
Workshop on DEEP LEARNING	7	25/11/2017 (1 day)
FDP Visualisation and modeling using Open GL, at College of Engineering, Trivandrum	2	04/12/17 to 09/12/17 (6 days)
FDP on “Introduction to cryptology” IIT Roorkee	2	04/12/17 to 08/12/17 (5 days)
Faculty Development Programme on “Web Technologies: An Industrial Perspective” organized by Department of Computer Science and Engineering, Muthoot Institute of Technology and Science, Ernakulam	1	15/12/17 to 16/12/17(2 days)
DTE sponsored Short Term Training Programme on ALGORITHMS IN	1	18/12/17 to 22/12/17 (5 days)

MACHINE LEARNING at College of Engineering Trivandrum.		
FDP on “Nurturing Quality Teaching in Engineering Education” by AICTE at TKM College of Engineering	2	18/12/2017 to 23/12/2017(6 days)
Machine Learning with R, Organized by MCA Dept, TKMCE	1	09/01/18 to 15/01/2018(1 week)
Computer Networks Challenges and Implementation , Organized by CSE Dept, TKMCE	10	22/01/18 - 26/01/2018(5 days)
Short term course under the sponsorship of AICTE QIP on Education Technology at TKMCE	2	12/02/18 to 17/02/18(6 days)
FDP on “Engineering and Industrial Services”at TCS, Trivandrum.	1	26/02/18(1 day)
GIAN Course on Intelligent Electrical Power Grids (IEPG) organized by Dept of EEE, NIT, Trichy	2	27/11/2017-01/12/2017
FDP on Artificial Intelligence for Biomedical Applications	19	11/12/2017-15/12/2017
FDP on Applied Mathematics for Engineering Research at CET	1	11/12/2017-15/12/2017
Orientation for Faculty organized by Teaching Learning Centre of TKMCE	3	11/12/2017-15/12/2017
Smart Grid & Clean Energy Technologies (SGCET -2017) organized by Dept. of EEE, Pondicherry Engineering College	3	11/12/2017-22/12/2017
National Workshop on OPAL-RT & dSPACE for HIL applications in Power Systems	2	04/12/2017-08/12/2017
Teaching Workshop on DC Machines & DC Drives under QIP Programme of AICTE, New Delhi	1	01/01/2018-05/01/2018
Workshop on Power Electronics & Drives	19	03/01/2018-04/01/2018
Short term course on Emerging Applications in Mechatronics & Automation organized by Dept of Mechanical Engineering, TKMCE	1	08/01/2018-13/01/2018
AICTE sponsored FDP on Education Technology	4	12/02/2018-17/02/2018
Redesigning courses for OBE at CUSAT	1	14/02/2018-16/02/2018
FDP on Engineering & Industrial Drives (EIS) held at TCS Trivandrum	1	26/02/18
FDP “Blockchain”	1	12/03/2018

Machine Learning and Deep learning at TCS Kochi	1	26/04/2018
Annual Power conference organized by SNAGS analytics, Ajman.	1	27/04/2018-28/04/2018
Educational Technology(FDP)	1	12th- 17th Feb2018
Refresher Course-Summer School	1`	23-7-18 to 13-8-18.
Workshop on NPTEL by IIT, Madras at TKMCE	2	22-07-2017
GIAN Course on Key Enabling Technologies for 5G Wireless Networks at NIT, Calicut	3	08/12/2017 to 13/12/2017
Faculty Development Programmes on Artificial Intelligence for Bio-Medical Applications Dept of EEE, TKMCE, TEQIP	8	11/12/2017 to 15/12/2017
Faculty Development Programmes on Nuturing Quality Teaching in Engineering Education Dept. of Civil Engineering, TKMCE, AICTE-QIP	2	18/12/2017 to 23/12/2017
Workshop on Android Application Development Dept of ECE, TKMCE, TEQIP	11	20/12/17 to 22/12/17
Faculty Development Programmes on Emerging Applications in Mechatronics & Automation Dept. of Mechanical Engineering, TKMCE, AICTE-QIP	6	08/01/2018 to 13/01/2018
Faculty Development Programmes on Machine Learning with R Dept of MCA & Maths, TKMCE, TEQIP	2	08/01/2018 to 15/01/2018
Faculty Development Programmes on Educational Technology, Dept. of Mechanical Engineering, TKMCE, AICTE-QIP	5	12/02/2018 to 17/01/2018
Redox flow batteries for electrical energy storage, IIT Delhi	1	01/12/17 to 14/12/17
Nanoporous materials in catalysis – Fundamentals and applications, IIT Madras	1	27/04/18 to 06/05/18
Immersed boundary methods for turbulent incompressible flows, IIT Kharagpur	1	18/12/17 to 22/12/17
3rd Intl Conference on Materials, Mechanics and Management, CET	1	13.07.2017 to 15.07.2017
Liveability of Future Cities, GEC Thrissur	1	23.07.2018 to 27.07.2018

Disaster Management at NITTR	3	24.07.2017- 28.07.2017
State Level Programme Officers Workshop held at SreeBudha College of Engg, Pattoor, Alappuzha	1	26 & 27th Aug 2017
Orientation Program for Faculty, TKMCE	2	11.12.2017- 15.12.2017
4th Intl Conference on Modelling and Simulation in Civil Engg, TKM		13.12.2017 - 15.12.2017
Research avenues in Geo-Environmental Engineering	1	24.12.2017
Sustainable Architecture: Beyond the Rhetoric, CET (Trivandrum)-	2	18.12.2017 to 20.12.2017
Technological Advancements in Materials for Construction-	2	8.01.2018- 13.01.2018
Design Thinking	1	12.03.2018
Climate Responsive Architecture at CAT	3	23.07.2018 - 27.07.2018
Research Avenues in Geoenvironmental Engineering	21	4/12/2017 to 9/12/2017
Vibro-Acoustics	2	Dec 4-8, 2017
Nurturing Quality Teaching in Engineering Education	15	18/12/2017 to 23/12/2017
Technological Advancements in Materials for Construction	11	8/1/2018 to 13/1/2018
Self-Awareness and Higher Goals in Education	1	4/6/2018 to 8/6/2018
Product Development of an IOT Device	2	7/6/2018 to 9/6/2018
Sustainable Construction Materials	2	16/7/2018 to 20/7/2018
Non-linear time series analysis with R	1	30/4/2018 to 4/5/2018
Sustainability issues in Civil Engg	1	7/5/2018 to 11/5/2018
Artificial Neural Networks and Fuzzy Logic	2	23-07-2018 to 27- 07-18
Emerging applications in Mechatronics & Automation	1	08-01-2018 to 13- 08-2018
Biomechanics for Engineers	1	March-12-17
Education Technology	1	February-12-17
QIP-FDP ON EDUCATION TECHNOLOGY	6	12-17 FEB 2018
Refrigeration and Air Conditioning (Five Day ISHRAE-AICTE Refresher Course), IIT Guwahati	4	2nd to 6th July 2018

6.3.4 Faculty and Staff recruitment (no. for permanent/fulltime recruitment):				
Teaching		Non-teaching		
Permanent - 12	Fulltime	Permanent - 11	Fulltime/temporary	
6.3.5 Welfare schemes for				
Teaching	Group Insurance, Provisional Fund, GPAI Scheme, State Life Insurance, NPS (National Pension Scheme), FBS (Family benefit scheme)			
Non teaching	Group Insurance, Provisional Fund, GPAI Scheme, State Life Insurance, NBS (National Pension Scheme), FBS (Family benefit scheme)			
Students	SBI General Insurance			
6.4 Financial Management and Resource Mobilization				
6.4.1 Institution conducts internal and external financial audits regularly (with in 100 words each) The institution has three types of audits: 1. Internal audit by a Chartered Accountant firm. 2. Audit by the Directorate of Technical Education, Government of Kerala, Thiruvananthapuram. 3. Audit by the Office of the Accountant General, Government of India, Thiruvananthapuram. The above three audits are done yearly by the concerned. No major irregularities have been raised by the authorities. In addition to this, the institution is having consultants to give opinion on taxation and legal issues.				
6.4.2 Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)				
Name of the non government funding agencies/ individuals		Funds/ Grants received in Rs.	Purpose	
TKM College Trust		175020209.00	Maintenance & Development of infrastructure facilities, other recurring expenditure	
From PTA		4277800.00	Remuneration of Guest Lectures & Other academic purposes.	
Alumni Association		132000.00	Recurring exp.	
Sale of Staff Application		247300.00	Recurring exp.	
6.4.2 Total corpus fund generated		179677309/-		
6.5 Internal Quality Assurance System				
6.5.1 Whether Academic and Administrative Audit (AAA) has been done?				
Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	KTU	Yes	IQAC
Administrative	Yes	DTE and AG	Yes	IQAC

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

- Conducted Class wise, First year and General PTA Meetings.

Apart from this, PTA financially supports many activities of the college. Few examples:

- Financial assistance to Facility Management Cell of the college to conduct maintenance and general cleaning of campus.
- Financial assistance for renewal of Microsoft licence for campus.
- Monthly remuneration paid to one sweeper
- Financial support for Patent filing of one M Tech student.
- Financial assistance to Principal and a team of faculty to sign MOU with Kookmin University South Korea.
- Financial assistance for the purchase of SMS package for college.
- Provided scholarship to semester wise toppers in B Tech degree examinations
- Financial support for providing instruction and display boards in different departments.
- Financial support for improving lab facilities in different departments.
- Financial support for improving infrastructural facilities in departments and campus.
- Financial support for conducting NSS state level camp at college.
- Financial support to student to attend conference in Japan and Singapore.
- Financial support to one student to participate in Gramyamnthan programme.
- Financial support to install surveillance cameras and street lights inside campus.
- Financial support to one student to attend National Para Taekwondo championship.
- Financial assistance to purchase LCD Projector to APJ conference room hall.
- Financial assistance to students to participate Technical festival 'THATVA 2017' at NIT Calicut.
- Financial assistance for interior design work and purchase of 2 A/cs for IQAC room.
- Financial assistance for repairing smart class room equipments.
- Financial support for purchasing 4 air conditioners to IEDC room
- Financial support to 2 students to participate in Jagrithi Yathra 2017.
- Financial assistance for setting up of FAB LAB.
- Provided grants to different department HODs for their day today activities.
- Financial assistance for conducting a meeting to felicitate meritorious final year students.
- Financial assistance to Mechanical engineering students to participate in SAE BAJA 2018 national level completion.
- Financial assistance to one M Tech student to attend Conference at Delhi
- Financial assistance to renew insurance of College bus.
- Financial assistance to pay remuneration of Guest faculties in different departments.
- Financial assistance for payment of college electricity bill.
- Financial assistance to College union to conduct film festival.

6.5.3 Development programmes for support staff (at least three)				
<ul style="list-style-type: none"> Regularly conducts training programs for staff to operate and maintains the lab facilities, in order to expose them to all the equipment in their corresponding domain. Training is regularly given in the respective labs for newly joined technical staff Training is given in state-of-the art equipment and softwares to all instructors Technical staff are financially supported to undergo training on their specialization in Professional Training Institutes and the companies. 				
6.5.4 Post Accreditation initiative(s) (mention at least three)				
<ul style="list-style-type: none"> Activities to enhance research collaboration with national and international organizations and institutions are initiated. Encourages all Departments to enhance professional body activities to reach the technical expertize to the society Active discussions are initiated with the software development firm to improve the capability of the MIS system now exist in the college. This will enhance the productivity of the academic environment. 				
6.5.5				
a. Submission of Data for AISHE portal : (Yes / No) Yes				
b. Participation in NIRF : (Yes / No) Yes				
c. ISO Certification : (Yes /No) Discussion initiated				
d. NBA or any other quality audit : (Yes /No) Yes (All UG and 2 PG are accredited)				
6.5.6 Number of Quality Initiatives undertaken during the year				
Year	Name of quality initiative by IQAC	Date of conducting activity	Duration (from-----to-----)	Number of participants
2017-18	Oreintaion Program for New Faculties	11 -15 December 2017	11 -15 December 2017	60
2017-18	FDP on 'Education Technology'	12-17 January 2018	12-17 January 2018	62

CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES			
7.1 - Institutional Values and Social Responsibilities			
7.1.1 Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)			
Title of the programme	Period (from-to)	Participants	
		Female	Male
Motivational Talk for Mahilamandiram Inmates	04/03/2018	10	0

Note: Every program in the college ensure gender equality.

7.1.2 Environmental Consciousness and Sustainability/Alternate Energy initiatives such as: Percentage of power requirement of the College met by the renewable energy sources : Solar panels are placed in the campus for lighting street lamps at night.

7.1.3 Differently abled (Divyangjan) friendliness						
Items Facilities			Yes/No		No. of Beneficiaries	
Physical facilities			YES		All required students and staff	
Provision for lift			YES		All students and staff	
Ramp/ Rails			YES			
Braille Software/facilities					No blind student	
Rest Rooms			YES			
Scribes for examination			YES			
Special skill development for differently abled students			YES			
Any other similar facility			Yes, Wheel chairs			
7.1.4 Inclusion and Situatedness						
Enlist most important initiatives taken to address locational advantages and disadvantages during the year						
Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date and duration of the initiative	Name of the initiative	Issues addressed	Number of participating students and staff
2017-2018	6	10	28/01/2018	Green Carpet	Cleanliness of the local area at Kollam	>75
			21/01/2018	Technical Equipment Maintenance	Repair damaged electronic equipments free of cost	>75
			05/08/2017, 12/08/2017	Swachhta Pakwara-Campus, Bus Stand, Public Library	Cleanliness of the area	>100
			06/08/2017	Monsoon Disease Awareness Class	Fast spreading of diseases	>30
			22/01/2018	Summer Disease Awareness at Mekone	Fast spreading of disease	>30
			05/06/2017	Environment Protection Awareness at Harijan School	Deterioration of Environment	>200
			05/08/2017	Medical Camp	Help financially backward patients	>100

			15/01/2018	Class on career opportunities in Armed Forces at Balabhavan and Balikabhavan	Apprehend students with career knowledge	>50
			03/03/2018	Motivational Talk for the inmates of Mahilamandiram	Stimulate a zeal in the inmates	>50

7.1.5 Human Values and Professional Ethics		
Code of conduct (handbooks) for various stakeholders		
Title	Date of Publication	Follow up (maximum 100 words each)
College Handbook	2016	Updated each year
7.1.6 Activities conducted for promotion of universal Values and Ethics		
Activity	Duration (from-----to-----)	Number of participants
An interactive session on Anti-drug and sexual abuse prevention	01/03/2018	
Environment Protection Awareness at Harijan School	05/06/2017	160
Monsoon Disease Awareness	06/08/2017	75
Summer Disease Awareness	22/01/2018	20
Swachhta Pakwara campus, bus stand, public library cleaning	05/08/2017,12/08/2017	40
Yoga Day	21/06/2018	40
7.1.7 Initiatives taken by the institution to make the campus eco-friendly (at least five)		
<p>There are devoted staff to maintain the campus, gardens and buildings. Apart from this, students also organise many activities to impart the sense of cleanliness and eco-friendliness to every student of the campus. Few activities done by students in the campus during the year 2017-18 are:</p> <ul style="list-style-type: none"> • Paper Segregation by NSS • Seed Pen Distribution • April Cool • Swachhta Pakwara- Campus Cleaning • Sapling Plantation in the college Campus on Environmental Day • Oru Tharu: Lakshmi Tharu sapling distribution, 		

7.2 Best Practices

- Robust mentoring system with one faculty advisor for a group of 30 students
- Endowments/Scholarships instituted by retired faculty and alumni
- Merit-cum-means scholarship for deserving students from exclusive contribution from monthly salary of every staff of the college
- Students are encouraged and is financially supported for undertaking Internships and participating/presenting papers at Internationally acclaimed Universities/Conferences.
- Humanitarian activities undertaken by the students and faculty of various Departments in collaboration with various professional organisations.

7.3 Institutional Distinctiveness

Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust (Provide the weblink of the institution in not more than 500 words)

The institute provides special focus on the activities of professional and student bodies and such platforms are being utilized to extend the technical knowledge for the betterment of the society. These kind of activities instil ethical, social and environmental perspectives in designing systems for sustainable development. This will help to nurture creativity, self-learning and interpersonal skills in students. Few examples for such approaches are Edam housing project, SAE Baja vehicle design context and IEEE activities. Edam project is an initiative of Govt. of Kerala to construct economically viable housing units for the under privileged sessions of our society. The college is a partner for the project. The project aims to provide shelter to 100 families in the Kundara constituency (near to the college). The low-cost houses for the project were designed and constructed by students of the TKM College of Engineering. Minister for Fisheries, Kerala State, Mrs. J. Mercykutty Amma presented the Edam housing project in a seminar on 'Community Empowerment by Sustainable Development Goals' at the United Nations headquarters in New York. Our students club of Society of Automotive Association (SAE India) participated in the Tractor Design Competition organized by SAE india. The tractor developed by our students bagged fourth place in All India Level, third in Design and first in Manoeuvrability during 2018. IEEE chapter of our institute is very active in social outreach programs. The IEEE student branch of the college had electrified 26 colony houses under BPL category of Edamulakkal Grama Panchayat, near to the college. Wiring and installations were done by our students in the project. This IEEE student branch has won the prestigious 'Darrel Chong Student Activity Award' in GOLD Category and was recognized as outstanding student branch.

Weblinks:

1. <https://www.thehindu.com/news/national/kerala/edam-housing-schemepresented-at-un-hq/article23506116.ece>
2. <http://tkmce.ac.in/saeindia-tkmce-collegiate-club.html>
3. <https://ieeesbtkmce.in/>

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

- 1) Enhance research activates through funded projects and collaborative research with national and international institutions and organizations. This helps to improve research facilities and consultancy works.
- 2) Make programs and college prepare for next accreditation cycle (both NBA and NAAC).
- 3) Enhance activities of professional bodies/association in order to improve overall development of students. This can help to improve placement and higher education possibilities for students.

Name: Dr. A. Sadiq

Name: Dr. S. Ayoob

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

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Signature of the Coordinator, IQAC

Name: Dr. S. Ayooob



Signature of the Chairperson, IQAC

Abbreviations:

AAA	Academic Administrative Audit
AICTE	All India Council for Technical Education
AISHE	All India Survey on Higher Education
AQAR	Annual Quality Assurance Reports
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
BoS	Board of Studies
CA	Continuous Assessment
CAD	Computer Aided Design
CAT	Common Admission Test
CC	Class Committee
CCF	Central Computing Facility
CE	Civil Engineering
CERD	Centre For Engineering Research And Development
CGPA	Cumulative Grade Point Average
CGPU	Career Guidance and Placement Unit
CO	Course Outcome
CPC	College Planning Committee
CSE	Computer Science and Engineering
CSI	Computer Society of India
CSIR	Council of Scientific and Industrial Research
DAC	Department Academic Committee
DMC	Department Management Committee
DQAC	Department Quality Assurance Cell
DRDO	Defence Research and Development Organisation
DST	Department of Science and Technology
DTE	Director of Technical Education
ECE	Electronics and Communication Engineering
EEE	Electrical and Electronics Engineering
FDP	Faculty Development Programme
FMC	Facility Management Committee
FWS	Fee waiver Scheme
FBS	Family Benefit Scheme
GATE	Graduate Aptitude Test in Engineering
GPA	Grade Point Average
GPAI	Group Personal Accident Insurance
HoD	Head of the Department
ICT	Information and Communication Technologies
IE	Institution of Engineers
IEDC	Innovation and Entrepreneurship Development Cell

IEEE	Institute of Electrical and Electronics Engineers
IEI	The Institution of Engineers India
IETE	The Institution of Electronics and Telecommunication Engineers
IGS	Indian Geotechnical Society
IIC	Industrial Instrumentation and Control
IChE	Indian Institute of Chemical Engineers
IIIC	Industry Institution Interaction Cell
IISc	Indian Institute of Science
IIT	Indian Institute of Technology
IMA	Indian Medical Association
IPR	Intellectual Property Rights
IQAC	Internal Quality Assurance Cell
IRE	Indian Rare Earths Limited
ISRO	Indian Space Research Organization
ISTE	Indian Society for Technical Education
KMML	The Kerala Minerals and Metals Limited
KSEB	Kerala State Electricity Board
KTU	APJ Abdul Kalam Technological University
LPSC	Liquid Propulsion System Centre
MCA	Master of Computer Application
MCM	Merit Cum Means
ME	Mechanical Engineering
MEA	Mechanical Engineering Association
MHRD	Ministry of Human Resource Development
MODROBS	Modernization and Removal of Obsolescence Scheme MOOC Massive Online Open Courseware
MoU	Memorandum of Understanding
NAAC	National Assessment and Accreditation Council
NASA	National Association for Students of Architecture
NATA	National Aptitude Test in Architecture
NBA	National Board of Accreditation
NIT	National Institute of Technology
NPS	National Pension Scheme
NITTTR	The National Institute of Technical Teachers Training and Research
NPTEL	National Programme on Technology Enhanced Learning
NSS	National Service Scheme
OCI	Overseas Citizenship of India
OER	Open Educational Resources
PEO	Programme Educational Objective
PIO	Person of Indian Origin
PO	Programme Outcome

PTA	Parent Teachers Association
QEEE	Quality Enhancement in Engineering Education
QIP	Quality Improvement Programme
RPS	Research Promotion Scheme
SAC	Student Affairs Committee
SBI	State Bank of India
SAE	Society of Automotive Engineers
SEBC	Socially and Educationally Backward Community
SSS	Students Satisfaction Survey
STEPS	Students of TKM for the Empowerment of People and Society
STTP	Short Term Training Programme
SWC	Students Welfare Committee
TAGA	TKMCE Alumni Global Association
TCS	Tata Consultancy Services
TEQIP	Technical Education Quality Improvement Programme
TKM	Thangal Kunju Musaliar
TKMCE	Thangal Kunju Musaliar College of Engineering
TKMMCM	TKM Merit-cum-means
VSSC	Vikram Sarabhai Space Centre
