

YEARLY STATUS REPORT - 2020-2021

| Par | Part A | | |
|--|---|--|--|
| Data of the | Data of the Institution | | |
| 1.Name of the Institution | T. K. M. COLLEGE OF ENGINEERING, KOLLAM | | |
| Name of the Head of the institution | Dr. T A SHAHUL HAMEED | | |
| • Designation | Principal | | |
| • Does the institution function from its own campus? | Yes | | |
| Phone no./Alternate phone no. | 04742712024 | | |
| Mobile no | 9847072024 | | |
| Registered e-mail | principal@tkmce.ac.in | | |
| Alternate e-mail | iqac@tkmce.ac.in | | |
| • Address | TKM College PO, Karicode | | |
| • City/Town | Kollam | | |
| • State/UT | Kerala | | |
| • Pin Code | 691005 | | |
| 2.Institutional status | | | |
| Affiliated /Constituent | Affiliated | | |
| Type of Institution | Co-education | | |
| • Location | Urban | | |

Page 1/80

| • Financial Status | Grants-in aid |
|---|--|
| Name of the Affiliating University | APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala |
| Name of the IQAC Coordinator | Dr. Adarsh S. |
| • Phone No. | 04742712024 |
| Alternate phone No. | 8078976388 |
| • Mobile | 9446915388 |
| IQAC e-mail address | iqac@tkmce.ac.in |
| Alternate Email address | adarshs.iitb@gmail.com |
| 3.Website address (Web link of the AQAR (Previous Academic Year) | https://tkmce.ac.in/uploads/igac/ AQAR2019-20_Approved.pdf |
| 4. Whether Academic Calendar prepared during the year? | Yes |
| • if yes, whether it is uploaded in the Institutional website Web link: | https://tkmce.ac.in/uploads/calendar/Academic-Calendar-Odd%20Semester-2020-21.xlsx |

5.Accreditation Details

| Cycle | Grade | CGPA | Year of Accreditation | Validity from | Validity to |
|---------|-------|------|--------------------------|---------------|-------------|
| Cycle 1 | A | 3.11 | 2017 | 27/11/2017 | 26/11/2022 |

6.Date of Establishment of IQAC 13/10/2015

7.Provide the list of funds by Central / State Government UGC/CSIR/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.,

| Institutional/Depa rtment /Faculty | Scheme | Funding | Agency | Year of award with duration | Amount |
|--|---|-----------|-----------|-----------------------------|-----------|
| Mechanical Engineering/ Dr. Sadiq A and Dr. Mubarak Ali | Nil | DR | DO | 2021 | 20,00,000 |
| Electrical and Electronics Engineering/ Dr. Sabeena Beevi K | Nil | TEQI | P-II | 2020 | 1,47,500 |
| Chemistry/ Dr. Habeeb Muhammed M. A. | Nil | TEQI | P-II | 2020 | 1,50,000 |
| 8.Whether composi | ition of IQAC as p | er latest | Yes | | |
| • Upload latest IQAC | notification of form | ation of | View File | 2 | |
| 9.No. of IQAC mee | tings held during | the year | 1 | | |
| compliance t | nutes of IQAC mee to the decisions hav the institutional we | e been | Yes | | |
| • | upload the minutes od d Action Taken Rep | | No File U | Jploaded | |
| 10.Whether IQAC of the funding ager during the year? | _ | = | No | | |
| • If yes, menti | on the amount | | | | |

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

IQAC made leading transformational advice for the Academic Autonomy of the institution and proceeded with the application submission to UGC

In the Covid-19 pandemic, the smooth functioning of the teachinglearning process has been successfully monitored and consistently followed up to ensure effective content delivery to the students

Our institution has been participated in NIRF2020 ranking and India Today MDRA Ranking 2021. We have submitted the application and documents to MDRA on February 2021. Our institution has been selected as one of the top ten institutions in India which offers the lowest tuition fee. The institution has been ranked 98 with a score of 730.2 out of 2000.

IQAC Coordinated the Webinar series for the preparatory works of academic autonomy. Prof. Prem Vrat, former Director of IIT Roorkee delivered a series of talks for a better awareness about the academic autonomy.

Coordinated a Webinar on "Developing Curriculum and Syllabus Accounting OBE Concept" for the Curriculum Development committee members in connection with the autonomy preparation of the institution

12.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 |
|---|---|
| Submit DATA for NIRF ranking | Submitted and secured a position within 201-250 band |
| Conduct Student Induction Program (SIP) for first year students | Smooth induction of students in to the college academics with confidence |
| Implementation of data collection mechanism | Channelised the data collection mechanism at IQAC from all the department |
| Documentation for UGC team visit | Coordination and documentation for Autonomous status conducted on April 12 and 13, 2022 |
| Conduct Academic Audit | Conducted academic audit (Internal and external) during odd and even semester |
| Conduct faculty performance appraisal | Measures taken to improve the faculty credentials |
| 13.Whether the AQAR was placed before statutory body? | Yes |

• Name of the statutory body

| Name | Date of meeting(s) |
|------|--------------------|
| BOG | 21/12/2021 |

14. Whether institutional data submitted to AISHE

| Year | Date of Submission |
|------|--------------------|
| Yes | 23/03/2022 |

Extended Profile

1.Programme

1.1

Number of courses offered by the institution across all programs during the year

Page 5/80 20-06-2022 06:58:30

| File Description | Documents |
|------------------|------------------|
| Data Template | <u>View File</u> |

2.Student

2.1

Number of students during the year

| File Description | Documents |
|---|------------------|
| Institutional Data in Prescribed Format | <u>View File</u> |

2.2

Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year

| File Description | Documents |
|------------------|-----------|
| Data Template | View File |

2.3

Number of outgoing/final year students during the year

| File Description | Documents |
|------------------|------------------|
| Data Template | <u>View File</u> |

3.Academic

3.1

Number of full time teachers during the year

| File Description | Documents |
|------------------|------------------|
| Data Template | <u>View File</u> |

3.2

Number of sanctioned posts during the year

| 1.1 | Extended | Extended Profile | |
|---|---|----------------------------|-----------|
| Number of courses offered by the institution across all programs during the year File Description Data Template 2.Student 2.1 Number of students during the year File Description Institutional Data in Prescribed Format 2.2 Number of seats earmarked for reserved category as per GOI/State Govt. rule during the year File Description Documents Data Template 2.3 Number of outgoing/ final year students during the year File Description Documents Data Template 3.Academic 3.1 Number of full time teachers during the year File Description Documents | 1.Programme | | |
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| Data Template View File | | oss all programs | |
| 2.Student 2.1 | File Description | Documents | |
| 2.1 Number of students during the year File Description Institutional Data in Prescribed Format 2.2 Number of seats earmarked for reserved category as per GOI/State Govt. rule during the year File Description Data Template 2.3 Number of outgoing/ final year students during the year File Description Documents Data Template 7 Jiew File 3.Academic 3.1 Number of full time teachers during the year File Description Documents | Data Template | | View File |
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| File Description Data Template 2.3 Number of outgoing/ final year students during the year File Description Data Template Documents File Description Data Template 3.Academic 3.1 Number of full time teachers during the year File Description Documents Documents Documents Documents Documents Documents Documents Documents | 2.2 | | 445 |
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| 2.3 Number of outgoing/ final year students during the year File Description Data Template 3.Academic 3.1 Number of full time teachers during the year File Description Documents Documents Documents Documents | File Description | File Description Documents | |
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| 3.1 Number of full time teachers during the year File Description Documents | Data Template | | View File |
| Number of full time teachers during the year File Description Documents | 3.Academic | | |
| File Description Documents | 3.1 | | 210 |
| | Number of full time teachers during the year | | |
| Data Template View File | File Description | Documents | |
| | Data Template | | View File |

| 3.2 | 184 |
|--|-----|
| Number of sanctioned posts during the year | |

| File Description | Documents |
|------------------|------------------|
| Data Template | <u>View File</u> |

| 4.Institution | |
|---|----------|
| 4.1 | 73 |
| Total number of Classrooms and Seminar halls | |
| 4.2 | 25775066 |
| Total expenditure excluding salary during the year (INR in lakhs) | |
| 4.3 | 500 |
| Total number of computers on campus for academic purposes | |

Part B

CURRICULAR ASPECTS

1.1 - Curricular Planning and Implementation

1.1.1 - The Institution ensures effective curriculum delivery through a well planned and documented process

Yes. TKMCE is affliliated to APJ Abdul Kalam Technological University (APJ A KTU), Thiruvananthapuram, Kerala and follows the curriculum implemented by the university with effect from 2015 and 2019 schemes. All the academic and non-academic activities are followedas per the KTU published academic calendar. There are internal and external academic audits functioned to monitor the progress. Various class/course committees are functioning to monitor the effective content delivery in classrooms as well as laboratories. Institutional level and department level various training programmes are effectively conducted during the academic year 2020-21.

The institution meticulously plans for effective implementation of the curriculum. The process is detailed 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 budgets of programs listed and is forwarded to the Principal for necessary allocation of funds to individual departments. Before the end of current semester, the courses for next semester from curriculum are allotted 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 courses, which in turn is consolidated by the Senior Advisor and presented to DAC. The opted courses are allocated to faculty based on their field of specialization, number of times the course taught and experience. In the beginning of each semester, a course plan is prepared. The concerned faculty for each course 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 ET Lab AMS (the campus management software) and college website. These can be easily accessed by the students. Course files are prepared and maintained by the faculty which includes syllabus, course plan, teaching materials, 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 (Two Internal assessment test). Academic Committee monitors the functioning of course committee and class committees. The course committee reviews 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 neededfor the successful conduct of the course are decided by DQAC The parents and students can access Linways AMS using the login provided to them to know about the academic progress. Mid-term and end-term feedbacks for Teachers' Evaluations are collected from students and analysis is done for improving the teaching-learning process. The Institute has student chapters of professional societies like IEEE, ISTE, IEI, MEA, IGS, IETE, IIChE, CSI, SAE which organise co-curricular activities for skill up-gradation and to inculcate a social commitment in the students. The NPTEL student chapter assist the students to enroll

and successfully complete the MOOC based learning courses by IITs.

| File Description | Documents |
|-------------------------------------|------------------|
| Upload relevant supporting document | <u>View File</u> |
| Link for Additional information | Nil |

1.1.2 - The institution adheres to the academic calendar including for the conduct of Continuous Internal Evaluation (CIE)

Yes. The institution adheres to the academic calendar published by APJ Abdul Kalam Technnological University (KTU) and follows the schedule to conduct Continuous Internal Evaluations (CIE). Due to the Covid'19 some re-allocation has been made in the academic calendar to conduct the internal evaluations.

| File Description | Documents |
|-------------------------------------|--|
| Upload relevant supporting document | <u>View File</u> |
| Link for Additional information | https://tkmce.ac.in/uploads/calendar/Acade mic-Calendar-Odd%20Semester-2020-21.xlsx |

1.1.3 - Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the year. Academic council/BoS of Affiliating University Setting of question papers for UG/PG programs Design and Development of Curriculum for Add on/ certificate/ Diploma Courses Assessment /evaluation process of the affiliating University

A. All of the above

| File Description | Documents |
|---|------------------|
| Details of participation of teachers in various bodies/activities provided as a response to the metric | <u>View File</u> |
| Any additional information | <u>View File</u> |

1.2 - Academic Flexibility

1.2.1 - Number of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented

1.2.1.1 - Number of Programmes in which CBCS/ Elective course system implemented

19

| File Description | Documents |
|---|------------------|
| Any additional information | <u>View File</u> |
| Minutes of relevant Academic Council/ BOS meetings | No File Uploaded |
| Institutional data in prescribed format (Data Template) | <u>View File</u> |

1.2.2 - Number of Add on /Certificate programs offered during the year

1.2.2.1 - How many Add on /Certificate programs are added during the year. Data requirement for year: (As per Data Template)

0

| File Description | Documents |
|---|------------------|
| Any additional information | No File Uploaded |
| Brochure or any other document relating to Add on /Certificate programs | No File Uploaded |
| List of Add on /Certificate programs (Data Template) | No File Uploaded |

1.2.3 - Number of students enrolled in Certificate/ Add-on programs as against the total number of students during the year

0

| File Description | Documents |
|---|------------------|
| Any additional information | No File Uploaded |
| Details of the students enrolled in Subjects related to certificate/Add-on programs | No File Uploaded |

1.3 - Curriculum Enrichment

Page 11/80 20-06-2022 06:58:30

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

TKM College of Engineering, Kollam is affiliated under APJ Abdul Kalam Technological University (APJKTU), Thiruvananthapuram. The institution follows the curriculum of UG and PG programmes prescribed by the affiliating university. The UG curriculum includes the courses on HUT200 Professional Ethics in the 3rd/4th Semester, HUT310 Management for Engineers in 5th Semester (2019 Scheme), BE103 Introduction to Sustainable Engineering in 1st Semester, HS300 Principles of Management in 6th Semester (2015 Scheme). The interdisciplinary courses (8th Semester; 2015 Scheme) on the Environmental field were also available in the curriculum. The cross-cutting issues are addressed through content beyond syllabus and socially relevant activities of various clubs/cells. The concept of universal human values was conveyed to the first-year students during the student induction programme.

| File Description | Documents |
|---|------------------|
| Any additional information | <u>View File</u> |
| Upload the list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum. | <u>View File</u> |

1.3.2 - Number of courses that include experiential learning through project work/field work/internship during the year

2

Page 12/80 20-06-2022 06:58:30

| File Description | Documents |
|---|------------------|
| Any additional information | <u>View File</u> |
| Programme / Curriculum/ Syllabus of the courses | No File Uploaded |
| Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses | No File Uploaded |
| MoU's with relevant organizations for these courses, if any | No File Uploaded |
| Institutional Data in Prescribed Format | <u>View File</u> |

1.3.3 - Number of students undertaking project work/field work/ internships

114

| File Description | Documents |
|--|------------------|
| Any additional information | <u>View File</u> |
| List of programmes and number of students undertaking project work/field work//internships (Data Template) | No File Uploaded |

1.4 - Feedback System

1.4.1 - Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders Students Teachers Employers Alumni

C. Any 2 of the above

| File Description | Documents |
|---|------------------|
| URL for stakeholder feedback report | Nil |
| Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management | No File Uploaded |
| Any additional information | No File Uploaded |

Page 13/80 20-06-2022 06:58:30

1.4.2 - Feedback process of the Institution may be classified as follows

B. Feedback collected, analyzed and action has been taken

| File Description | Documents |
|-----------------------------------|------------------|
| Upload any additional information | No File Uploaded |
| URL for feedback report | Nil |

TEACHING-LEARNING AND EVALUATION

2.1 - Student Enrollment and Profile

2.1.1 - Enrolment Number Number of students admitted during the year

2.1.1.1 - Number of students admitted during the year

1132

| File Description | Documents |
|---|------------------|
| Any additional information | No File Uploaded |
| Institutional data in prescribed format | <u>View File</u> |

2.1.2 - Number of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy during the year (exclusive of supernumerary seats)

2.1.2.1 - Number of actual students admitted from the reserved categories during the year

435

| File Description | Documents |
|---|------------------|
| Any additional information | No File Uploaded |
| Number of seats filled against seats reserved (Data Template) | <u>View File</u> |

2.2 - Catering to Student Diversity

2.2.1 - The institution assesses the learning levels of the students and organizes special Programmes for advanced learners and slow learners

The class committee and course committee are functioning in the departments to assess the progress of the students. After 1st Series Examination a review between HOD, Senior advisor, subject coordinators and students representatives inclass committee

meeting to assess the academic performace of the students. Based on their performance a classification underExcellent, Good, Average and at risk categories to mentor for the better performance.

The departments use monitoring and mentoring to keep track of slow learners' progress. Along with teachers some advanced learners are encouraged to mentor weak students and help them with explanations and notes. Revision classes and counselling sessions are held and additional teaching is taken up if required.

Tutoring by peers, senior students, and mentors is offered. Corrected assignments and answer scripts are shared with each student and discussed to enable students to recognize their problematic areas and improve.

Advanced learners are encouraged to study Recommended Readings listed in each syllabus. The course plan of each subjects will be included with the list of MOOC courses offered by SWAYAM, NPTEL etc. for advanced learning. They are encouraged to maintain a journal or diary. Gold Medals are awarded to the toppers in the University Examinations during the annual Alumni meetings to motivate the students. Meritorious students are included as members of various Committees. GATE Coaching, Space/Infrastructure for the preparation of Civil Services Examinations were established in associated with Central Library sponsored by Alumni. Training and Placement Cell invites Companies and Industries to hold their placement drive at the campus and students are encouraged to actively register for the interviews. Training and Placement Cell also provides training in interview skills and communication skills. Proficiency in English classes, Functional Use of English, Personality Development programs are organized to enhance the employability of the students.

Online resources are made available to strengthen the knowledge-base. Students are encouraged to participate in seminars, conferences and workshops to gain knowledge. The Faculty takes a keen interest while ordering books for the Central library and ascertains that the library collection of books caters to the needs of both slow and advanced learners. The library also ensures accessibility to computer facilities and the internet for the online material, extends its timings and provides the atmosphere for conducive learning to both slow and advanced learners. The faculty facilitates students to publish their articles in renowned peer-reviewed journals.

| File Description | Documents |
|---------------------------------------|------------------|
| Paste link for additional information | Nil |
| Upload any additional information | No File Uploaded |

2.2.2 - Student- Full time teacher ratio (Data for the latest completed academic year)

| Number of Students | Number of Teachers |
|--------------------|--------------------|
| 4044 | 209 |

| File Description | Documents |
|----------------------------|------------------|
| Any additional information | <u>View File</u> |

2.3 - Teaching- Learning Process

2.3.1 - Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Teaching-learning methods adopted by the faculty members include Lecture Method, Interactive Method, Project-based Learning, Computer-assisted Learning, Experiential Learning etc. The Teaching-learning activities are made effective through illustration and special lectures. To acquire first-hand knowledge on the subjects and current practices students are engaged in field study. Lessons are taught through Power point presentations to make learning interesting besides oral presenting methods.

Lecture method: This conventional method is commonly adopted by all teachers. This method facilitates the teacher to interpret, explain and revise the content of a text-only for better understanding of the subject by the learners.

Interactive method: The faculty members make learning interactive with students by motivating student participation in group discussion, role-play, subject quiz, news analysis, educational games, discussion and questions and answers on current affairs.

ICT Enabled Teaching: ICT enabled teaching includes Wi-Fi enabled class rooms with LCD, Language Lab, Smart Class rooms, E-learning resources. Virtual class room links the guest lecture of eminent persons to develop their core knowledge in the subject. The institution adopts modern pedagogy in line with emerging trends to enhance teaching-learning process. The institution has the

essential equipments to support the faculty members and students.

Online reference, lecture talks, motivational talks, educational videos and web reference support the teaching-learning process. The institution has installed Wi-Fi on the campus to support the educational activities of the inmates. All the departments provide instructional materials to the students for easy follow-up / understanding the concepts on the college website. Learning resources and useful websites are made available in the college website, which serve as a ready link to access the portals of information and gain knowledge.

| File Description | Documents |
|-----------------------------------|------------------|
| Upload any additional information | No File Uploaded |
| Link for additional information | Nil |

2.3.2 - Teachers use ICT enabled tools for effective teaching-learning process. Write description in maximum of 200 words

Teachers combine technology with traditional mode of instruction to engage students in long term learning. College uses ICT in education to support, enhance, and optimize the delivery of education like-

- ETLAB platform
- Online Classes through Zoom, Google Meet, Microsoft Team, Google Classroom
- Virtual labs are used to conduct labs through simulations
- The PPTs are enabled with animations and simulations to improve the effectiveness of the teaching-learning process.
- To teach mathematical subjects in online mode, teachers have used various online tools like- whiteboard in Microsoft teams, Jamboard in Google meet, etc.
- Lab manuals and experiment videos are mailed to students well in advance the experiment is performed.

Online quizzes and polls are regularly conducted to record the feedback of the students.

| File Description | Documents |
|---|------------------|
| Upload any additional information | No File Uploaded |
| Provide link for webpage describing the ICT enabled tools for effective teaching-learning process | No File Uploaded |

2.3.3 - Ratio of mentor to students for academic and other related issues (Data for the latest completed academic year)

2.3.3.1 - Number of mentors

209

| File Description | Documents |
|--|------------------|
| Upload, number of students enrolled and full time teachers on roll | <u>View File</u> |
| Circulars pertaining to assigning mentors to mentees | No File Uploaded |
| Mentor/mentee ratio | <u>View File</u> |

2.4 - Teacher Profile and Quality

2.4.1 - Number of full time teachers against sanctioned posts during the year

210

| File Description | Documents |
|--|------------------|
| Full time teachers and sanctioned posts for year (Data Template) | <u>View File</u> |
| Any additional information | No File Uploaded |
| List of the faculty members authenticated by the Head of HEI | No File Uploaded |

- 2.4.2 Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.B Superspeciality / D.Sc. / D.Litt. during the year (consider only highest degree for count)
- 2.4.2.1 Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.C Superspeciality / D.Sc. / D.Litt. during the year

Page 18/80 20-06-2022 06:58:30

71

| File Description | Documents |
|--|------------------|
| Any additional information | No File Uploaded |
| List of number of full time teachers with Ph. D. / D.M. / M.Ch./ D.N.B Super specialty / D.Sc. / D.Litt. and number of full time teachers for year (Data Template) | <u>View File</u> |

2.4.3 - Number of years of teaching experience of full time teachers in the same institution (Data for the latest completed academic year)

2.4.3.1 - Total experience of full-time teachers

15

| File Description | Documents |
|--|------------------|
| Any additional information | No File Uploaded |
| List of Teachers including their PAN, designation, dept. and experience details(Data Template) | <u>View File</u> |

2.5 - Evaluation Process and Reforms

2.5.1 - Mechanism of internal assessment is transparent and robust in terms of frequency and mode. Write description within 200 words.

Two Internal examinations, assignments, quiz or viva were conducted for each subject to assess the student's performance in a particular semester. During the COVID-19 pandemic, the online mode internal examinations were conducted, which alone can't be considered as a tool to assess the actual performance. Hence, it was decided to conduct a viva voce examination or time-bound quiz to refine the assessment.

The institute has made its own reforms in the evaluation process at college level. The institute is presently following outcome based evaluation on various Graduate Attributes. For this, the institute has specified POs as suggested by National Board of Accreditation (NBA). Each programme has published PSOs as well. The individual department in the institute utilize rubrics for assessing POs. The Course Outcomes (COs) are oriented to match with POs that are to be attained through a course. For various

courses, the students are subjected to various Continuous Assessment (CA) procedures, namely, assignments, quizzes, tutorials, mini-projects, filed-works and class-seminars. These are evaluatedby the faculty-in-charge of the course. Two internal examinations (Series Tests) are also conducted in every semester. Questions are formulated to assess the corresponding COs. Every semester, students are further evaluated by the University Exam (summative assessment) for maximum marks of 100. The total marks scored for a course is taken as 150, which is the sum of CA marks (50) and University Exam marks (100). The CA marks for the individual courses 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 theman opportunity to improve their skills through various activities.

| File Description | Documents |
|---------------------------------|-------------------------------|
| Any additional information | No File Uploaded |
| Link for additional information | https://tkmce.ac.in/exams.php |

2.5.2 - Mechanism to deal with internal examination related grievances is transparent, time-bound and efficient

The institute has devised an efficient mechanism to deal with examination related grievances which transparent in the pattern and conduction of CIE and rectification of grievances is time bound. The college follows strictly the guidelines and rules issued by the affiliating university while conducting internals and semester-end examinations. Class Committee and Course committees are functioning in the departments as well as institution level to monitor the academic progress of the students. Chairman, convener, faculty members and students representatives are the Class/Course Committee members.

At Institute level: At Institute level, an examination committee, comprising of a senior teacher as convener and other teaching and non-teaching staff as members, is constituted to handle the issues regarding evaluation process. The teacher distributes evaluated answer scripts to students, and any clarifications or grievances are addressed by the teacher. The internal marks are displayed on

the notice board. If any discrepancy like mistakes in question paper, mark allocation, correction is noticed by the students, the concerned teacher will resolve the discrepancy, and the necessary corrections will be made. If a student is not satisfied with the marks awarded even after resolved by the teacher, then he may represent the same to the HOD concerned. All such representations are taken positively and are reassessed by another teacher if necessary. Parents are informed about their ward's performance through email. Students are counselled by the faculty mentor, and remedial classes are conducted for students who have failed in the examinations. Retest for the Internal Assessment are conducted for Students who remain absent for internal exams due to genuine reason. Within a time bound the Internal Assessment marks are entered in the University web portal, by student's login, students can individually view their performance in the University portal.

At University level: If students have grievances related to evaluation of university answer scripts it is intimated to the subject handling faculty and head of the department if necessary, for further action. Students can bring their grievances by applying for the following evaluation procedure:

Re-Evaluation: Students can apply for re-evaluation of their answer scripts within a week from the declaration of results if they are not satisfied with their results. The results of reevaluation will be announced as per the university norms.

Answer sheet Scrutiny: If the re-evaluation results are not satisfactory, a student can apply for answer sheet scrutiny within a week after the announcement of the revaluation results. The scanned copy of the answer sheet will be received by the student from the University, which can be evaluated by two or three subject experts from the institution. If any drastic change observed in the marks, student can submit review comments in support with the expert faculty members by paying a nominal fee insisted by the University. University Examination and the fees will be refunded to the students if he/she clears the paper. So maximum chances are given to the students to clear the subject. The entire process is maintained transparent and time bound by the university.

| File Description | Documents |
|---------------------------------|-------------------------------|
| Any additional information | No File Uploaded |
| Link for additional information | |
| | https://tkmce.ac.in/exams.php |

2.6 - Student Performance and Learning Outcomes

2.6.1 - Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

Yes. The Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students. This process will give an ample scope of Outcome Based Education (OBE) and continuous improvement in the results as well as placement, higher studies and entrepreneurship among the students.

| File Description | Documents |
|---|---|
| Upload any additional information | <u>View File</u> |
| Paste link for Additional information | https://tkmce.ac.in/uploads/igac/POs-and- PSOs-of-Programmes.pdf |
| Upload COs for all Programmes (exemplars from Glossary) | No File Uploaded |

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

The key aspects in Outcome-Based Education (OBE) are the assessment of course outcomes. At the initial stage of OBE implementation, the Course Outcomes (CO's) for each course are defined based on the Program Outcome (PO's) and other requirements. At the end of each course, the COs needs to be assessed and evaluated, to check whether it has been attained or not. Assessment is one or more processes, carried out by the department, that identify, collect, and prepare data to evaluate the achievement of Course outcomes and Programme Outcomes. Attainment is the action or fact of achieving a standard result towards accomplishment of desired goals. Attainment of the COs can be measured directly and indirectly.

After measuring attainment of POs , PSOs and COs, it has been observed that the strength of the students as well as passing percentage of the students is increasing progressively. Besides, students' progression to the higher studies that is from Under Graduate to Post Graduate seems to be increasing consistently and rapidly in the last five years. In a similar way, the ratio of students' placement is also increasing. We took utmost care of measuring the level of attainment of POs, PSOs and COs and followed formal as well as informal mechanism for the measurement

of attainment of the outcomes. Even we took feedback from all the stakeholders in this respect and try to take necessary steps accordingly. Subsequently, the College took care of the attainment to measure the POs, PSOs and COs and implemented the mechanism as follows:-

The institute followed the Academic Calendar of our affiliated university.

All the subject teachers maintained Academic Diary in every academic year.

All the subject teachers prepared Semester-Wise evaluation Reports.

Internal examination committee analyzed evaluation reports of results.

Institute considered Feedback from the Stakeholders for the attainment of PO, PSO and CO.

Placement committee took the review of the Students' Progression to Higher Studies and their Placement.

| File Description | Documents |
|---------------------------------------|------------------|
| Upload any additional information | No File Uploaded |
| Paste link for Additional information | Nil |

2.6.3 - Pass percentage of Students during the year

2.6.3.1 - Total number of final year students who passed the university examination during the year

| | | - |
|---|----|---|
| × | רי | |
| U | J | - |

| File Description | Documents |
|---|--|
| Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template) | <u>View File</u> |
| Upload any additional information | No File Uploaded |
| Paste link for the annual report | https://www.tkmce.ac.in/uploads/govern- body/2020%20Minutes.pdf |

2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire) (results and details need to be provided as a weblink)

https://tkmce.ac.in/uploads/iqac/Student%20Satisfaction%20Survey%20AY%202020-21.pdf

RESEARCH, INNOVATIONS AND EXTENSION

- 3.1 Resource Mobilization for Research
- 3.1.1 Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)
- 3.1.1.1 Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)

22.975

| File Description | Documents |
|---|------------------|
| Any additional information | No File Uploaded |
| e-copies of the grant award letters for sponsored research projects /endowments | No File Uploaded |
| List of endowments / projects with details of grants(Data Template) | <u>View File</u> |

3.1.2 - Number of teachers recognized as research guides (latest completed academic year)

3.1.2.1 - Number of teachers recognized as research guides

42

| File Description | Documents |
|---|------------------|
| Any additional information | <u>View File</u> |
| Institutional data in prescribed format | <u>View File</u> |

3.1.3 - Number of departments having Research projects funded by government and non government agencies during the year

3.1.3.1 - Number of departments having Research projects funded by government and non-government agencies during the year

3

| File Description | Documents |
|---|------------------|
| List of research projects and funding details (Data Template) | <u>View File</u> |
| Any additional information | No File Uploaded |
| Supporting document from Funding Agency | No File Uploaded |
| Paste link to funding agency website | Nil |

3.2 - Innovation Ecosystem

3.2.1 - Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

The institution has Innovation and Entreprenureship Development Cell (IEDC) and Institute Innovation Council (IIC) to enhance the innvoation ecosystem inside the campus. The Innovation and Entrepreneurship Development Cell of TKMCE is an organisation that aims to promote the institutional vision of transforming youngsters into technological entrepreneurs and innovative leaders. The initiative is to address the rising trend of corporate job culture and establish a platform to pursue ideas and businesses at an early stage. We at IEDC TKMCE host various workshops, speaker sessions, competitions to develop skill sets and provide essential resources to take up entrepreneurship as a career. The vision of IEDC-TKMCE is given below.

Vision

The Innovation and Entrepreneurship Development Cell aims to help students develop a spirit of innovation and entrepreneurship and to undertake major initiatives to assist the promotion of the same in the region by providing them the facilities to create the products and the services that will take us together towards a brighter future.

| File Description | Documents |
|---------------------------------------|----------------------------|
| Upload any additional information | No File Uploaded |
| Paste link for additional information | https://www.iedctkmce.com/ |

3.2.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship during the year

3.2.2.1 - Total number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during the year

5

| File Description | Documents |
|--|------------------|
| Report of the event | <u>View File</u> |
| Any additional information | No File Uploaded |
| List of workshops/seminars during last 5 years (Data Template) | <u>View File</u> |

3.3 - Research Publications and Awards

3.3.1 - Number of Ph.Ds registered per eligible teacher during the year

3.3.1.1 - How many Ph.Ds registered per eligible teacher within the year

22

| File Description | Documents |
|---|--|
| URL to the research page on HEI website | https://ktu.edu.in/data/SUPERVISORS-20-21- FINAL-T0%20UPLOAD.xlsx.pdf?=bp3HxtFW4hTrja LDTEpT8obgxBgdRaMLZqHPEKMOjxRyLiqDZ1VcT59p ULiq68jm42U1%2BFIrpzYI5diuSiiX7Q%3D%3D |
| List of PhD scholars and their details like name of the guide, title of thesis, year of award etc (Data Template) | <u>View File</u> |
| Any additional information | No File Uploaded |

3.3.2 - Number of research papers per teachers in the Journals notified on UGC website during the year

3.3.2.1 - Number of research papers in the Journals notified on UGC website during the year

78

| File Description | Documents |
|---|------------------|
| Any additional information | No File Uploaded |
| List of research papers by title, author, department, name and year of publication (Data Template) | <u>View File</u> |

3.3.3 - Number of books and chapters in edited volumes/books published and papers published in national/international conference proceedings per teacher during the year

3.3.3.1 - Total number of books and chapters in edited volumes/books published and papers in national/international conference proceedings year wise during year

127

| File Description | Documents |
|---|------------------|
| Any additional information | No File Uploaded |
| List books and chapters edited volumes/ books published (Data Template) | <u>View File</u> |

3.4 - Extension Activities

3.4.1 - Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the year

Page 27/80 20-06-2022 06:58:30

The extension activities in TKM College of Engineering are through the following clubs/cells. National Service Scheme (Unit No.174 & 262)

PAPER BAG MAKING

During this pandemic period as everyone was taking a step back, the NSS Units 174 & 262 of TKM College of Engineering had no plan to step back. We utilized the technologies and kept on doing our work. As it was a new experience to everyone we took this platform to bring out the best in everyone and learn a few tricks. So we took this opportunity to do many things and one among them was Paper Bag Making. As plastic bags are a main problem these days paper bags are really good alternative and eco-friendly. Our mentors looked into this and suggested to do this activity as it is really rewarding for both humans and nature. For beginners there was a demo video provided in YouTube and by seeing that video anyone could easily do it and also educate others. The response was really fantastic as a large number of people came to participate and it was a big success.

• PLANT A SAPLING

During this pandemic, NSS Units 174 and 262 of TKM College of Engineering, as a part of ANTI POLLUTION DAY CHALLENGE, proved that we could make our leisure time worthy by planting saplings. Each volunteer was instructed to plant saplings at their home and share images of the same. The program received an overwhelming response from every member. Our aim was to motivate each volunteer to do something good for mother nature. This was a small step towards a big mission. Let's heal the world together and cherish it till the end for future generations!

CLEANING ACTIVITY

As people all over the world are locked in their homes, NSS Units 174 and 262 of TKM College of Engineering found this as the best time to keep our home and surroundings clean and safe. So as a part of ANTI POLLUTION DAY CHALLENGE, we gave an activity 'FRIDAY DRY DAY' for volunteer selection. Every volunteer had to carry out any sort of cleaning activities and share some snapshots of the same. Every volunteer carried out the challenge giving utmost care to avoid situations of standing water which could be the birthplace of several disease carriers. We received an immaculate response from each volunteer within stipulated time. A clean house

is a sign of Good life. Our goal of "Clean World" starts from cleaning our Home. This is the beginning of a small change that we can bring into the world. Together we can contribute to a greater cause.

Students of TKMCE for the Empowerment of People and Society (STEPS)

GOAL

Social commitment and empathy diminishes day by day among professional college students. It is in this scenario that the students of TKMCE have come up with STEPS. We are a group of students committed to social entrepreneurship, and spreading the message of love, kindness and empathy.

ACCOMPLISHMENTS

- Aardra a state wide stem cell donor registry drive organized in July August 2015. The number of registrations shot up by 4.2% in India and by 18.5% in Kerala.
- Kazcha an eye checkup camp which provided essential optometric care to almost 100 people.
- Renovation at Kollam district hospital in the memory of Aju Prakash, Nixon Aby Mathew, Adhil Shah, Arun K Sabu, Sijo and Syed Inzamam who passed away in 2015 on New Year's eve.
- Initiated the first offline program of Addicted to Life -an anti-drug campaign which aimed at empowering young people to make their lives drug-free ones.
- Conducted a state wide awareness campaign to prevent Brain Drain. Especially relevant in a country which loses a large majority of its skilled workforcedue to this affliction.
- Started a campus palliative homecare unit with a technical touch. Patients requiring palliative care are regularly visited and necessary care given by our trained volunteers.
- Help Entrance a program to provide entrance coaching for less privilged students.
- One Day One Rupee a program in which the students of TKMCE donate one rupee per day to fund the various social initiatives taken up by STEPS.
- Fully-fledged blood bank.
- Organizing blood donation camps including a mega blood donation camp during Tezoro 2015 (TKMCE's tech fest) which lead to an award by the IMA (Indian Medical Association).
- Interactive sessions with students at Balabhavan,

- Balikamandiram and Ashraya spending almost 3-4 hours per week and related educational and other activities.
- Interactive session with inmates of Mahilamandiram and helping within our limitations and through sponsorship.
 Supported marriage of inmate through sponsorship and fundraisers.
- Visiting Gandhibhavan, Pattanapuram and interacting with about 836 inmates and donating money, dresses and other needs.
- Distribution of school kits for students with limited means. Distributed more than 500 school kits including notebooks, pens, pencils etc this year.
- Providing financial support for patients inside and outside TKM. We also support patients from RCC.
- Well maintained and periodically updated book bank. Also provided textbooks for engineering students of other colleges who found it difficult to afford them.
- Putting up a helpdesk in the time of first year admission providing guidance, food etc.
- Renovated a home that accommodates people with mental disabilities
- Serving food and garments to the homeless destitute on an annual basis.
- Provided more than 70 Ramadan kits to the poor and needy.
- Organised workshops on trauma care to effectively deal with accidents.
- Conducting various awareness programs to educate and empower the general public about aforestation, sustainable use of resources, waste management, social values, national integrity and organ donation.
- Supported self labour by providing financial assistance to start up candle making units at Pakalveedu - a mental rehabilitation centre.

Anti Drugs Cell

Anti Drugs Cellof the college has been constituted to ensure a drug- free campus by imposing a total ban on the possession or consumption or use of drugs and alcohol by students of the college, within or outside the campus/hostels.

The duties of the anti-drugs cell include:

 organizing awareness programmes in the college and hostels with the help of government authorized agencies/ organizations.

- educating the students about the ill-effects of drugs and alcohol.
- encouraging peer policing among students against the use of drugs.
- reporting of any noticed use of drugs by the students to the students affairs committee.

Green Cell

Green Cell is formed with support from Directorate of Environment &Climate Change, Government of Kerala. It aims at encouraging students to appreciate the environment and to react positively to environmental issues. The club organizes talks, seminars, essay competitions etc. on current environmental problems. The other activities include planting trees in the college campus, maintaining the trees and cleaning the campus. The club installed a biogas plant for the college canteen. Awareness is made among the students to keep the classroom and campus clean.

| File Description | Documents |
|---------------------------------------|--------------------------------|
| Paste link for additional information | https://tkmce.ac.in/campus.php |
| Upload any additional information | <u>View File</u> |

3.4.2 - Number of awards and recognitions received for extension activities from government / government recognized bodies during the year

3.4.2.1 - Total number of awards and recognition received for extension activities from Government/ Government recognized bodies year wise during the year

42

| File Description | Documents |
|--|------------------|
| Any additional information | No File Uploaded |
| Number of awards for extension activities in last 5 year (Data Template) | <u>View File</u> |
| e-copy of the award letters | No File Uploaded |

3.4.3 - Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS

Page 31/80 20-06-2022 06:58:30

awareness, Gender issues etc. and/or those organized in collaboration with industry, community and NGOs) during the year

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

52

| File Description | Documents |
|--|------------------|
| Reports of the event organized | <u>View File</u> |
| Any additional information | No File Uploaded |
| Number of extension and outreach Programmes conducted with industry, community etc for the during the year (Data Template) | <u>View File</u> |

- 3.4.4 Number of students participating in extension activities at 3.4.3. above during year
- 3.4.4.1 Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachh Bharat, AIDs awareness, Gender issue etc. year wise during year

1175

| File Description | Documents |
|---|------------------|
| Report of the event | No File Uploaded |
| Any additional information | No File Uploaded |
| Number of students participating in extension activities with Govt. or NGO etc (Data Template) | <u>View File</u> |

3.5 - Collaboration

- 3.5.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/internship during the year
- 3.5.1.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship year wise during the year

60

| File Description | Documents |
|--|------------------|
| e-copies of related Document | No File Uploaded |
| Any additional information | No File Uploaded |
| Details of Collaborative activities with institutions/industries for research, Faculty | <u>View File</u> |

3.5.2 - Number of functional MoUs with institutions, other universities, industries, corporate houses etc. during the year

3.5.2.1 - Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. year wise during the year

14

| File Description | Documents |
|--|------------------|
| e-Copies of the MoUs with institution./ industry/corporate houses | No File Uploaded |
| Any additional information | No File Uploaded |
| Details of functional MoUs with institutions of national, international importance, other universities etc during the year | <u>View File</u> |

INFRASTRUCTURE AND LEARNING RESOURCES

4.1 - Physical Facilities

4.1.1 - The Institution has adequate infrastructure and physical facilities for teaching-learning. viz., classrooms, laboratories, computing equipment etc.

TKM College of Engineering, Kollam, is the first Government-aided engineering college in Kerala, situated in the cashew hub of Kerala, City of Kollam. It is ideally located in Karikode, on the Kollam-Chenkotta road, about 5 km from the heart of the city. The campus, a distinctive landmark that cuts above the rest, is built in the aesthetic Indo-Saracenic architectural style. Spanning over more than 14 acres, with a covered built area of about four lakh square feet consisting of classrooms, laboratories, seminar halls, an auditorium, office block and toilets, the college bears an elegant view of a traditional campus. Besides, there are modern residential hostels and state of the art centres for sports and games.

Page 33/80 20-06-2022 06:58:30

Classrooms, Laboratories and Faculty Seating

There are 73 classrooms with adequate space for UG and PG intake requirements. All the class rooms are ICT enabled and 14 classrooms have interactive boards.

82 laboratories with sophisticated and modern experimental arrangements provide an effective dissemination of knowledge and skills. Laboratories ensure safety precautions to be taken, and safety norms are displayed in all laboratories.

Fablab, has become a making space for students using 3-D printing technique, laser cutter and such prototyping facilities.

Each faculty member has a separate cabin ensuring their privacy in academics and student mentoring.

Central Library and Department Libraries

The Central library is housed in a separate building with an ambience conducive for transaction of knowledge. It has got exclusive spaces for reference and reading. There is an airconditioned e library for students and faculty to search e journals and other study material. With a collection of over 90,000 books and 15000 technical journals, every year, procurements are made to cope with the changing requirements. Separate space is provided for the collection in humanities and literature as the college is keen in the holistic development of the students. The library is automated with KOHA, the platform for quick search and delivery.

An exclusive area in the library, TKM Aroma-Lace, has been earmarked for students aspiring for civil services and other competitive examinations.

Besides central library, there are ten department libraries associated with each department and the students can avail text books and e-journals from there too.

Auditorium, Seminar Halls and Conference Rooms

The main auditorium can accommodate about 1000 students at a time and the following four well-equipped seminar halls, namely, Golden Jubilee Hall, APJ Hall, Architecture Seminar Hall and PTA Hall with excellent acoustic ambience are used to conduct seminars and meetings. Apart from these, there are two conference rooms to

conduct Governing Body meetings, HoD meetings and similar meetings.

Career Guidance & Placement Unit, Entrepreneurship Development Cell

A separate office for CGPU, and discussion space for IEDC are provided in the campus with adequate net connectivity and furnishing.

Office for College Union and Professional Bodies

Furnished spaces are provided for professional bodies like Institution of Engineers India (IEI), Institution for Electrical Electronic Engineers (IEEE), elected college union of students and National Service Scheme (NSS)

Hostels

Boys Hostel: 4

Ladies Hostel: 7

Total capacity: 2300

All the hostels have Wi-Fi connectivity, gymnasium and suitable ambience for studies. One boys' hostel is International Students Hostel with air- conditioned rooms and furnishings. Besides, there is a guest house available for accommodating parents, resource persons etc.

Sports and Other Facilities

Facilities on campus include a football and cricket ground, a synthetic tennis court, an indoor badminton court, an indoor table tennis court, a basketball court and a gymnasium. The indoor badminton court of professional standards was constructed during the academic year 2012-13. The court, made up of Burma teak wood, is a venue for hosting District, University and State level championships. A nine-layer synthetic tennis court having the standards specified by International Tennis Federation (ITF) and gallery were constructed in our campus during the academic year 2016-17. The court is a regular venue for hosting University level championships.

Adequate spaces are provided for the Central computing facility,

Career Guidance and Placement Unit, canteen, ATM and stationerycum-book stores, open park and coffee corner

To sum up, the college has sufficient infrastructure for the existing programmes and is adaptable to the changes to set forth its journey as an autonomous institution.

| File Description | Documents |
|---------------------------------------|-----------------------------|
| Upload any additional information | <u>View File</u> |
| Paste link for additional information | https://tkmce.ac.in/ccf.php |

4.1.2 - The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga centre etc.

Cultural Activities

The students are motivated to participate in cultural and extracurricular activities. The college arts fest is conducted every year to encourage students to participate in the University arts festival. Music Club, Drama Club and Photographic Club of TKMCE also motivate students to participate in various cultural activities. The inter-semester arts festival is organised every year by the college union, to showcase the cultural talents of the students. The contribution of the Literary and Debate Club of the college deserves special mention. Apart from being an avenue for expressing opinion, it plays a key role in improving the public speaking skills of the students, pooling a wide variety of ideas on a range of issues.

The Music Club has been one of the most sought after clubs in the college. Many vibrant musical events are conducted by the club. Diligent efforts are taken by the Film and Drama club to spread awareness about the technicalities involved in the film industry and the updates that have been taking place with the advent of technology. Students also participate in the University Youth Festival, and technical/cultural fests organised by other institutes in South India.

Technical fests are organised in the institute with a lot of events which help to develop the technical as well as managerial skills, in addition to showcasing the cultural talents of the student capabilities. A national level techno-managerial cultural symposium, HESTIA, is conducted every year in the college. In

addition, individual department associations also organize technical fests.

The NSS unit of the college is enthusiastic to organise various activities for the benefit of the society. The funds for the various activities are provided by the University. NSS volunteers are students from various departments. The activities of NSS play a vital role in inculcating commitment to the society.

Sports

Football and Cricket ground, Gymnasium, Tennis court, Indoor Badminton court, Indoor Table Tennis court, Basketball court and Sports Coach available. However, due to covid-19 situation no offline sports items conducted during this period

| File Description | Documents |
|---------------------------------------|---------------------------------------|
| Upload any additional information | No File Uploaded |
| Paste link for additional information | https://tkmce.ac.in/facilities-pe.php |

4.1.3 - Number of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc.

73

| File Description | Documents |
|--|------------------|
| Upload any additional information | No File Uploaded |
| Paste link for additional information | Nil |
| Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template) | View File |

4.1.4 - Expenditure, excluding salary for infrastructure augmentation during the year (INR in Lakhs)

4.1.4.1 - Expenditure for infrastructure augmentation, excluding salary during the year (INR in lakhs)

Page 37/80 20-06-2022 06:58:30

257.75 (INR Lakh)

| File Description | Documents |
|--|------------------|
| Upload any additional information | No File Uploaded |
| Upload audited utilization statements | <u>View File</u> |
| Upload Details of budget allocation, excluding salary during the year (Data Template | <u>View File</u> |

4.2 - Library as a Learning Resource

4.2.1 - Library is automated using Integrated Library Management System (ILMS)

CENTRAL LIBRARY ANDINFORMATION CENTRE The various sections of the library include the reference section, acquisition /technical section, circulation section, book bank, digital library etc. The Central Library is an NLIST, DELNET and National Digital library member. Under this scheme, we are entitled to more than 15,000 electronic journals and 2.1 lakh e-books. Central Library is subscribed to e-journals of American Society of Civil Engineers (ACSE), American Society of Mechanical Engineers (ASME), Springer, Elsevier's Science Direct, IEEE(ASPP), EBSCO Architecture. As part of e-Shodh Sindhu, Central Library is entitled to access to Web of Science. The central library also subscribes e-books of Pearson and Springer. National Programme for Technology Enhanced Learning (NPTEL) Videos are also available in the library. Plagiarism detection services, Reprographic service, etc., are the other services provided through Central Library. Central Library also has an exclusive learning resource centre (TKM AROMA LACE-) for Aspirants of Civil Services Exams and other Competitive Exams. Besides the print version library subscribes to digital newspapers and magazines through EDZTER. Central library collaborates with INFLIBNET through INFED to provide remote access to e-resources through the portal http://idp.tkmce.ac.in An Institutional Repository portal, that houses the knowledge production in the institution is also functional.

The Central Library of the institution is fully automated through an Integrated Library Management System (ILMS) software namely KOHA since 2014.

| File Description | Documents |
|---------------------------------------|--|
| Upload any additional information | No File Uploaded |
| Paste link for Additional Information | https://www.tkmce.ac.in/library.php; http://idp.tkmce.ac |

4.2.2 - The institution has subscription for the following e-resources e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access toe-resources

A. Any 4 or more of the above

| File Description | Documents |
|---|------------------|
| Upload any additional information | No File Uploaded |
| Details of subscriptions like e- journals,e-ShodhSindhu, Shodhganga Membership etc (Data Template) | <u>View File</u> |

4.2.3 - Expenditure for purchase of books/e-books and subscription to journals/e- journals during the year (INR in Lakhs)

4.2.3.1 - Annual expenditure of purchase of books/e-books and subscription to journals/e-journals during the year (INR in Lakhs)

Total Expenditure (INR in Lakh):43,84,369/- Fourty Three Lakhs Eighty Four Three Thousand Three Hundred and Sixty Nine Only.

| File Description | Documents |
|---|------------------|
| Any additional information | No File Uploaded |
| Audited statements of accounts | No File Uploaded |
| Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template) | <u>View File</u> |

4.2.4 - Number per day usage of library by teachers and students (foot falls and login data for online access) (Data for the latest completed academic year)

4.2.4.1 - Number of teachers and students using library per day over last one year

651

| File Description | Documents |
|---|------------------|
| Any additional information | <u>View File</u> |
| Details of library usage by teachers and students | No File Uploaded |

4.3 - IT Infrastructure

4.3.1 - Institution frequently updates its IT facilities including Wi-Fi

Uploaded in Table format

| File Description | Documents |
|---------------------------------------|---|
| Upload any additional information | <u>View File</u> |
| Paste link for additional information | https://tkmce.ac.in/ccf.php; https://tkmce.ac.in/cnc.php |

4.3.2 - Number of Computers

1151

| File Description | Documents |
|-----------------------------------|------------------|
| Upload any additional information | <u>View File</u> |
| List of Computers | No File Uploaded |

4.3.3 - Bandwidth of internet connection in the Institution

| Α. | 2 | 50 | MBP | Q |
|------------|---|---------------|-------|-----------------|
| ∽ • | • | \sim \sim | TILLE | $\mathbf{\sim}$ |

| File Description | Documents |
|--|------------------|
| Upload any additional Information | No File Uploaded |
| Details of available bandwidth of internet connection in the Institution | <u>View File</u> |

4.4 - Maintenance of Campus Infrastructure

- ${\bf 4.4.1 Expenditure\ incurred\ on\ maintenance\ of\ infrastructure\ (physical\ and\ academic\ support\ facilities)\ excluding\ salary\ component\ during\ the\ year\ (INR\ in\ Lakhs)}$
- 4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component during the year (INR in lakhs)

2,57,75,066

| File Description | Documents |
|--|------------------|
| Upload any additional information | No File Uploaded |
| Audited statements of accounts | No File Uploaded |
| Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates) | <u>View File</u> |

4.4.2 - There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

TKM College of Engineering Kollam has been following a policy of continuous improvement to cater to the emerging demands of technological advancements. In addition to improving the existing infrastructure that provides for the active academic and research activities of the core departments, the institution is visualizing its plan to broaden its horizons through interdisciplinary platforms. The infrastructure development plan for the institution in the next 5 years is charted as follows:

- 1. To develop a centralised computing and interdisciplinary research facility under the RUSA fund, with a new vision in the research sector.
- Development of existing Innovation and Entrepreneurship Development Cell with more spaces for business incubations.
- 3. To build a new Department block for the Architecture branch, incorporating all the additional facilities required in modern Architecture education, to elevate it as a centre of excellence.
- 4. Creation of a new Grand convention centre in the campus to accommodate 3000 people, which will be an important landmark in the history of the Institution.
- 5. Building a classroom complex to accommodate the increasing requirement of classrooms.
- 6. Construction of the Diamond Jubilee hostels to cater to the increased intake of students.
- 7. Expansion of the examination center of the institution in order to facilitate the efficient conduct of exams and evaluation procedures in the wake of an autonomous status.
- 8. New laboratory for Computer Science department with modern systems and software for research.
- 9. Modernisation of tools for research and development at

- various departments.
- 10. Starting of new laboratories for specific areas of research like solar energy, geo-environmental and water resources engineering, tribology, composites, material testing, thermal analysis, characterisations, static and cyclic triaxial testing, etc.
- 11. Maintenance of existing laboratories with minor civil works.
- 12. Set up a technology business incubator under Institution's Innovation cell (IIC) of MoE.
- 13. TKMCE is one among 49 institutions selected pan-India for establishing an AICTE IDEA lab

| File Description | Documents |
|---------------------------------------|--|
| Upload any additional information | <u>View File</u> |
| Paste link for additional information | https://tkmce.ac.in/uploads/TKM%20Academic %20Policy.pdf |

STUDENT SUPPORT AND PROGRESSION

5.1 - Student Support

5.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year

5.1.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year

1585

| File Description | Documents |
|---|------------------|
| Upload self attested letter with the list of students sanctioned scholarship | No File Uploaded |
| Upload any additional information | No File Uploaded |
| Number of students benefited by scholarships and free ships provided by the Government during the year (Data Template) | <u>View File</u> |

5.1.2 - Number of students benefitted by scholarships, free ships etc. provided by the institution / non- government agencies during the year

5.1.2.1 - Total number of students benefited by scholarships, free ships, etc provided by the

Page 42/80 20-06-2022 06:58:30

institution / non- government agencies during the year

72

| File Description | Documents |
|--|------------------|
| Upload any additional information | <u>View File</u> |
| Number of students benefited by scholarships and free ships institution / non- government agencies in last 5 years (Date Template) | <u>View File</u> |

5.1.3 - Capacity building and skills enhancement initiatives taken by the institution include the following: Soft skills Language and communication skills Life skills (Yoga, physical fitness, health and hygiene) ICT/computing skills

B. 3 of the above

| File Description | Documents |
|---|------------------|
| Link to Institutional website | Nil |
| Any additional information | No File Uploaded |
| Details of capability building and skills enhancement initiatives (Data Template) | <u>View File</u> |

5.1.4 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

3

5.1.4.1 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

3

| File Description | Documents |
|---|------------------|
| Any additional information | No File Uploaded |
| Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template) | <u>View File</u> |

5.1.5 - The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases Implementation of guidelines of statutory/regulatory bodies Organization wide awareness and undertakings on policies with zero tolerance Mechanisms for submission of online/offline students' grievances Timely redressal of the grievances through appropriate committees

C. Any 2 of the above

| File Description | Documents |
|--|------------------|
| Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee | <u>View File</u> |
| Upload any additional information | No File Uploaded |
| Details of student grievances including sexual harassment and ragging cases | No File Uploaded |

5.2 - Student Progression

5.2.1 - Number of placement of outgoing students during the year

5.2.1.1 - Number of outgoing students placed during the year

719

| File Description | Documents |
|--|------------------|
| Self-attested list of students placed | <u>View File</u> |
| Upload any additional information | <u>View File</u> |
| Details of student placement during the year (Data Template) | <u>View File</u> |

5.2.2 - Number of students progressing to higher education during the year

5.2.2.1 - Number of outgoing student progression to higher education

28

| File Description | Documents |
|--|------------------|
| Upload supporting data for student/alumni | No File Uploaded |
| Any additional information | No File Uploaded |
| Details of student progression to higher education | <u>View File</u> |

- 5.2.3 Number of students qualifying in state/national/international level examinations during the year (eg: JAM/CLAT/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations)
- 5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations) during the year

66

| File Description | Documents |
|--|------------------|
| Upload supporting data for the same | No File Uploaded |
| Any additional information | No File Uploaded |
| Number of students qualifying in state/ national/ international level examinations during the year (Data Template) | <u>View File</u> |

5.3 - Student Participation and Activities

- 5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national / international level (award for a team event should be counted as one) during the year
- 5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at university/state/ national / international level (award for a team event should be counted as one) during the year.

| A | |
|---|----------|
| 4 | 6 |

| File Description | Documents |
|---|------------------|
| e-copies of award letters and certificates | No File Uploaded |
| Any additional information | No File Uploaded |
| Number of awards/medals for outstanding performance in sports/cultural activities at unive rsity/state/national/international level (During the year) (Data Template) | <u>View File</u> |

5.3.2 - Institution facilitates students' representation and engagement in various administrative, cocurricular and extracurricular activities (student council/ students representation on various bodies as per established processes and norms)

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 installment of tuition fees at the beginning of each academic year, and the same is credited to the college union fund. The college union has an Executive Committee consisting of a Chairman, Vice-Chairman (Reserved for Lady), 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 the respective year among themselves, Two lady representatives elected by the lady students of the college from among themselves, Association Secretary for each department, 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, Honorable Treasurer and Staff Advisor (Ex-officio). In addition, they select the representatives and office-bearers of the 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) CourseCommittees (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.

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

| File Description | Documents |
|---------------------------------------|--------------------------------|
| Paste link for additional information | https://tkmce.ac.in/campus.php |
| Upload any additional information | No File Uploaded |

5.3.3 - Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions)

5.3.3.1 - Number of sports and cultural events/competitions in which students of the Institution participated during the year

7

| File Description | Documents |
|--|------------------|
| Report of the event | No File Uploaded |
| Upload any additional information | No File Uploaded |
| Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions (Data Template) | <u>View File</u> |

5.4 - Alumni Engagement

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

Sl. No.

0

Amount Spent

1.

Donated 106 laptops to financially backword students with the help of various alumni chapters and alumni batches.

42 lakhs

1.

Provided financial assistance to buy equipment to PG lab of Mechanical Engineering

2 lakhs

1.

Coordinated the sponsorship of a financially backword student by an Alumni member.

50,000/- per year

| File Description | Documents |
|---------------------------------------|-----------------------------------|
| Paste link for additional information | https://globalalumni.tkmce.ac.in/ |
| Upload any additional information | No File Uploaded |

5.4.2 - Alumni contribution during the year (INR in Lakhs)

| A. | ? | 5Lakhs |
|----|---|--------|

| File Description | Documents |
|-----------------------------------|------------------|
| Upload any additional information | No File Uploaded |

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 - Institutional Vision and Leadership

6.1.1 - The governance of the institution is reflective of and in tune with the vision and mission of the institution

Our governance body is so reflective and the prime focus is on the vision and mission of the institute.

Vision

Excellence in education and research with socio-economic and environmental outlook

Mission

- To offer state-of-the-art Undergraduate, Postgraduate and Doctoral programmes
- To enhance knowledge by engaging in cutting edge research and by undertaking collaborative projects with industry
- To instill ethical, social and environmental perspectives in designing systems for sustainable development
- To nurture creativity, self learning and interpersonal skills

| File Description | Documents |
|---------------------------------------|--------------------------------|
| Paste link for additional information | https://tkmce.ac.in/govern.php |
| Upload any additional information | No File Uploaded |

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

The college ensures decentralization of activities and participative management in all possible avenues permitted within the regulations of functioning. The following points may be noted with regard to the operational autonomy of individual departments:

- 1. The Department is headed by the HOD, who is assisted by the Academic Coordinator in curricular matters.
- 2. Every department has Department Management Committee (DMC), which is an active body in the department to decide on important academic and disciplinary matters of the department. This DMC has defined set of members, which will change periodically by the order of Principal.
- 3. Every Department prepares their budget and will be discussed in the DMC. This budget approved in DMC will be submitted to the Central Planning Committee of the college for approval.
- 4. The Departments are given a corpus fund for their emergency expense and the HOD has the power to decide the expenditure.
- 5. Each laboratory is managed by two faculty members who function as the lab in charge and assistant lab in charge. Technical staff

is also allotted to each lab.

- 6. Each batch of students has a Senior Faculty Advisor and four/ five Advisors, to support the curricular and personal matters. The Senior Advisor, through Class Committee Meetings, ensures that the classes are conducted well.
- 7. Feedback from staff and students are collected through various forums to get suggestions on the elective courses to be offered, monitor the pace of subject coverage, improve the quality of the classes, industrial interactions, etc. and corrective actions are taken, if needed.
- 8. Co-curricular and extracurricular activities function through clubs/committees/ cells/ chapters and enjoy autonomy in their operations.
- 9. The Career Guidance and Placement Unit (CGPU) was restructured with more involvement from the individual academic departments. A four tier structure was formulated with more participation from the Management, Department, and students.

| File Description | Documents |
|---------------------------------------|------------------|
| Paste link for additional information | Nil |
| Upload any additional information | No File Uploaded |

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/perspective plan is effectively deployed

1. Industry Interaction / Collaboration

Conducts Expert lectures by industry personnel. Projects of students are guided by industry experts. Industry related issues are solved as projects by students and faculty. Students'internship in industries and reputed institutions. Installed Testing center/Research center funded by industries. Continuous industry linkage by CGPU for career guidance activities.

2. Human Resource Management

Recruitment of faculty and staff is done by an interview board consisting of members representing Kerala Government, APJAKTU,

External Subject Expert chosen by the Directorate of Technical Education, Management etc., as per the guidelines of AICTE and Government of Kerala. Follows career advancement policies framed by the Government of Kerala. Pay revisions asper the norms laid down by AICTE and Government of Kerala.

3.Library, ICT and PhysicalInfrastructure / Instrumentation

Well-equipped library with e-learning facility. Subscribed to renowned International Journals. Physical infrastructure is updated frequently based on various needs.

4. Research and Development

Promote research of faculty under QIP at premier institutes. Full-time and Part-time Ph.D. research scholars are being guided by faculties. The institute is a QIP research center approved by MoE (previously, MHRD). Signed MoUs with industries, research organizations and universities of India and abroad. Received infrastructure developments from various funding bodies (MODROBS, RPS, DST/ISRO Projects).5.Examination and evaluation internal tests are conducted by the institution as per the guidelines of APJAKTU. The end-semester examinations are conducted by APJAKTUat the institution. The institute is a Centralized Valuation centre for UG and PG programmes.

6.Teaching and Learning

The course committees and subject groups formed to evaluate the teaching-learning process. Structured evaluation of teachers by students. Remedial classes for students. Taken feedback from stakeholders periodically. Students encouraged to participate in conferences, workshops, and 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 elearning facility through NPTEL lectures etc. Learning through FAB Laband activities of Innovation Entrepreneur Development Cell. Promote internship in reputed institutes and industries

7.Curriculum Development

The syllabus and curriculum designed by APJ Abdul Kalam Kerala Technological university (APJAKTU) is followed. The senior faculty members play a major role in APJKTU committees for syllabus revision.

Page 51/80 20-06-2022 06:58:30

8.Admission of Students

The strategy followed is that prescribed by the State Government.

| File Description | Documents |
|--|--|
| Strategic Plan and deployment documents on the website | <u>View File</u> |
| Paste link for additional information | https://drive.google.com/file/d/1z3yldUncG 9mVkCbDZdhkXR6-GBLjohTs/view?usp=sharing |
| Upload any additional information | No File Uploaded |

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

TKM College of Engineering (TKMCE), the first government-aided engineering college in Kerala was founded in 1956. The college is affiliated to the APJ Abdul Kalam Technological University and is approved by the All India Council for Technical Education (AICTE), New Delhi.

Pursuing excellence, TKMCE is blessed with students who have proven their mettle at a number of national and international stages, and have used their innovative thinking capability and technical know-how in socially relevant projects, products and events, and boasts a plethora of organisations and student chapters like ASCE, AICHE, ACM, CSI, IEEE, IIC, IETE, SAE. TKMCE has a rich tradition of eminence, and has been continually reinventing itself in terms of academics, research and social outreach.

Being a higher education institution with a legacy of more than sixty years, the college is not merely working on quality assurance processes, but developing internal quality cultures in line with the institutional realities. The quality culture is closely related to Organisational culture and firmly based on shared values, beliefs, expectations and a commitment towards the society at large.

The institutional quality management process encompasses the areas of Teaching-Learning, Research, Institute Social Responsibility and Governance/Administration. Hence the quality policy of the college has been set to establish quantifiable objectives for making checks and balance of all the major processes.

Quality policy

We are committed to ensure:

- Teaching-learning process at par with institutions of national importance
- Benchmark for research and its sustainability in sociotechnical aspects
- Efficient and transparent academic and financial administrative systems
- Use of credible, robust and relevant evaluation methods in all institutional systems
- Techno-commercial sensibilities and environmental outlook instilled in graduates

The institution has a well-defined administrative structure to plan, organise and execute various activities in its journey to attain its vision. Also, there exists a system to monitor the quality criteria adopted in the processes of teaching-learning, research, institute social responsibility and administrations.

Organisational Structure for Quality Management

The college-level administrative system includes HoDs & Deans Council headed by the Principal monitored and guided by the Governing Body under TKM College Trust. The teaching learning process, co-curricular, extracurricular and extension activities are managed at various levels. The Department Management Committee (DMC) plans, and HoDs carry out activities at the Department level. IQAC is committed to ensure Total Quality Management of the institution, by close monitoring of activities, multi-level surveys/feedbacks etc and giverecommendations to the Head of the Institution. The coordinatormeets the Head of the Institution on aregular basis and update the activities and give appropriate recommendations.

The proper functioning of this structure of administrative system ensures the quality of the institutional management.

Thangal Kunju Musaliar College Trust (TKM College Trust)

Sri. Thangal Kunju Musaliar, having identified that education is the best foundation in the process of nation building, made a great contribution to the process through the foundation of 'TKM College Trust'. The mission of the Trust was to start educational institutions to impart university education in general and to provide adequate educational facilities to socially and educationally backward sections of the society. The TKM College Trust has established many other institutions to impart quality education by providing excellent academic ambience and state of the art facilities so as to make the institutions trend-setters in the technical education scenario of the state of Kerala.

Governing Body

The administration of the college is vested in a Governing Body consisting of representatives of the TKM College Trust, Government of Kerala, and All India Council for Technical Education, headed by Sri. Shahal H. Musaliar as Chairman, and the principal as member secretary.

Functions of the Governing Body

- Formulating policies for the institute.
- Amend and approve policies from time to time
- Ratification of all decisions/orders issued related to the institution
- Approve budgets
- Ensure compliance to norms prescribed by AICTE, Government and concerned Universities from time to time

Principal

The Principal is appointed by the Chairman, Governing Body, TKM College of Engineering, based on the rules laid down by the regulatory agencies.

Job responsibilities

- Design and define the organisational structure of the College
- Delegate responsibilities of various positions in the organisation
- Periodic monitoring and evaluation of various activities in the institution
- Ensure effective purchase procedure
- Prepare annual budget
- Conduct periodic meeting of various bodies such as HODs, Infrastructure committee, Anti-ragging committee, Hostel Management Committee, Women's Grievances Redressal Committee etc.
- Manage accounts and finance

- Take part in employees recruitment process
- Oversee Office Administration
- Liaison with the Governing Body Chairman and members
- Any other Institutional works entrusted by the Chairman, Governing Body

HoDs and Deans Council

The committee is constituted by the Chairman, Governing Body with the following members.

Chairman:

Principal:

Members:

- 1. All Heads of Departments
- 2. Dean Administration
- 3. Dean UG
- 4. Dean PG
- 5. Dean Research
- 6. Dean Student Affairs
- 7. Dean International Collaborations
- 8. Professor, Career Guidance and Placement Unit
- 9. Coordinator, IQAC

Responsibilities:

- Monitor and review the status and progress of the policy implementation/working plan related with academics and general administration of the college.
- Approve the Vision, Mission, and PEOs of the constituent departments of the college.
- Review the reports presented by the HODs on the status of policy implementation on DMCs, Advisory system, course delivery and monitoring systems.
- Review the reports presented by the HOD (Physical Education) on matters relating to all policy implementations on sports and games.
- Review the reports presented by the Chief Warden/Deputy wardens on the status of policy implementation on hostel management.

Head of the Department (HoD)

Departmental Heads are appointed by the Principal, in consultation with the Chairman, Governing Body based on the rules laid down by the Government of Kerala and the University.

Job responsibilities:

- Plan and execute all activities of the department
- Prepare Department Budget
- Conduct Department management committee (DMC) meeting
- Implement decisions of DMC and course committee
- Monitoring of course delivery and advisory system
- Conduct of course committee meeting
- Maintain discipline and work culture in the department
- Maintain records of departmental activities and achievements
- Effectively monitors the ongoing teaching-learning process
- Make teachers accountable in terms of this vital component of pedagogy
- Address students grievances
- Provide a platform for meaningful interaction between students and teachers about the course delivery
- Coordinate activities of senior advisors in all semesters
- Seek appraisal reports from programme coordinators and senior advisors about the progress/activities of advisory groups in each semester
- Have periodic review of individual advisory groups and report to Principal
- Collects views from stakeholders in respect of formulation of Vision and Mission of the department.

Other committees/bodies

The committees managing the teaching-learning process, cocurricular, extracurricular and extension activities at various levels are listed below

- 1. The list of committees/bodies at the college level includes:
 - 1. Research Council
 - 2. Library Council
 - 3. Student Affairs Committee
 - 4. Ethics Committee
 - 5. Environment Management Cell
 - 6. Energy Management Cell
 - 7. IT Cell
 - 8. Examination Cell
 - 9. Anti-Drug Cell
 - 10. Anti-Ragging Cell

- 11. Innovation and Entrepreneurship Development Cell
- 2. The list of committees/bodies at the Department level includes:
 - Department Management Committee (DMC)
 - 2. Department Internal Quality Assurance Cell (DQAC)
 - 3. Department Academic Committee
 - 4. Class Committee
 - 5. Student Advisory Committee

The list of committees/bodies that support academic, co curricular, extracurricular and extension activities includes:

- 1. Sports Council
- 2. Career Guidance and Placement Unit (CGPU)
- 3. Grievances Redressal and Appeal Committee
- 4. College Union
- 5. Programme Associations
- 6. National Service Scheme (NSS)
- 7. Professional Societies

Internal Quality Assurance Cell (IQAC)

The policy outlined earlier and the associated procedures for the assurance of the quality and standards of the service rendered at each level have been monitored by IQAC. It contributes explicitly to the development of a culture which recognises the importance of quality, and quality assurance. To achieve this, the institution developed a formal strategy for the continuous enhancement of quality which is available in public domain.

IQAC evolves mechanisms and procedures for

- Ensuring timely, efficient and progressive performance of academic, administrative and financial tasks
- Ensuring quality of academic and research programmes
- Optimisation and integration of modern methods of teaching and learning

Responsibilities

- Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution
- Arrangement for Faculty evaluation from students
- Facilitate the creation of a learner-centric environment conducive for quality education and faculty maturation to

- adopt the required knowledge and technology for participatory teaching and learning process
- Organise workshops, seminars on quality related themes and promotion of quality circles and its documentation
- Develop and maintain Institutional database for the purpose of maintaining /enhancing the institutional quality

Having collected the performance data, the link to informing community involved and enabling the reviewing and correcting procedures have been a part of quality management. Various surveys conducted with students with regard to the effectiveness of a teacher, conduciveness of the ambience, and effectiveness of the curriculum form the major feedback available in quality management system.

Administrative Structure

The administrative hierarchy of the college where a clear reporting structure prevails, ensures accountability in each position. The well-defined administrative structure in the campus is led by the Principal who, in turn, reports to the Chairman, Governing body. Professional and transparent by inherent nature, the system responds proactively to the needs of students, staff and society at a quicker pace. The administrative structure of the institution are uploaded as separate file. The administrative structure of the college is given in the attached file.

| File Description | Documents |
|---|-------------------------------|
| Paste link for additional information | https://tkmce.ac.in/index.php |
| Link to Organogram of the institution webpage | Nil |
| Upload any additional information | <u>View File</u> |

| 6.2.3 - Implementation of e-governance in | B. | Any | 3 | of | the | above |
|---|----|-----|---|----|-----|-------|
| areas of operation Administration Finance | | | | | | |
| and Accounts Student Admission and | | | | | | |
| Support Examination | | | | | | |

| File Description | Documents |
|--|------------------|
| ERP (Enterprise Resource Planning)Document | No File Uploaded |
| Screen shots of user inter faces | <u>View File</u> |
| Any additional information | No File Uploaded |
| Details of implementation of e- governance in areas of operation, Administration etc(Data Template) | <u>View File</u> |

6.3 - Faculty Empowerment Strategies

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

In our Institution Staff welfare is given foremost importance. In connection with this, Existing welfare measure for teaching and non-teaching staff are itemized below

- Health insurance.
- Medical Leave & Maternity leave for eligible staff members
- Faculty members are eligible for Earned Leave
- Advances for the school fee & festivals.
- Gym is also accessible for the staff.
- Grocery store.
- Medical center.
- Transport on reasonable cost.
- Employee gets fees concession for their ward.
- As Institution has a multicultural environment in the campus, the management ensures the celebration of all the festivals together.
- Recreation centers are established for staff staying in campus.
- Sponsorships to attend and present papers in conferences both in India as well as abroad.
- In and around campus, various food centers has been established which are accessible by staff during the working and extended hours.
- Internet and free Wi-Fi facilities are also available in campus for staff
- Teaching and Non-Teaching Staff Club organizes tour, and sports activities for the staff.
- Faculty members are provided with Individual cabin and system to facilitate good ambience.
- Faculty Abroad Program to enable faculty to visit foreign

universities for study/ research

- 30 days Summer and Winter Vacations for faculty members
- Faculty development programs (FDP) for faculty members on regular basis
- Skill development courses are organized for non-teaching staff to enhance their skills in work environment.
- Automation of attendance and leave using biometric system.
- All the faculty members who upgrade their research work through quality publications during the academic year are honored by management and institute through research incentive scheme every year.
- The management also extends financial assistance to the needy students for pursuing higher education in our institution as per the requirement.
- Gratuity for the employees of the institution.
- Shuttle services are available in the campus helps faster and comfortable commutation. Elevator facility is enabled in all the blocks in the institution.
- All the staff members are treated on par with each other in obtaining benefits from the institution.
- Worker Engagement is a key perspective which helps to comprehend and portray, both subjectively and quantitatively, the nature of the connection between an association and its representatives.
- Motivation through counselling is also available for staff members to create a healthy working environment. This not only increases the work life balance of the employee; it also helps us in increasing the productivity and allows our staff to work effectively with complete satisfaction.
- Women Empowerment Cell is established for creating venues for women members to flourish and gain momentum.

In a nutshell, the Institution strives hard to keep our staff happy and healthy.

In short, welfare scheme in the istitution can be summerised as follows:

- 1.Teaching :-Group Insurance, Provisional Fund, GPAI Scheme, State Life, Insurance, NPS (National Pension Scheme), FBS(Family benefit scheme).
- 2.Non-teaching:-Group Insurance, Provisional Fund, GPAI Scheme, State Life, Insurance, NPS (National Pension Scheme), FBS(Family benefit scheme).

3.Students:SBI General Insurance,Merit cum Means,Scholarship by College

| File Description | Documents |
|---------------------------------------|------------------|
| Paste link for additional information | Nil |
| Upload any additional information | No File Uploaded |

- 6.3.2 Number of teachers provided with financial support to attend conferences/ workshops and towards membership fee of professional bodies during the year
- 6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the year

14

| File Description | Documents |
|--|------------------|
| Upload any additional information | No File Uploaded |
| Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template) | <u>View File</u> |

- 6.3.3 Number of professional development /administrative training programs organized by the institution for teaching and non-teaching staff during the year
- 6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff during the year

35

| File Description | Documents |
|---|------------------|
| Reports of the Human Resource Development Centres (UGCASC or other relevant centres). | <u>View File</u> |
| Reports of Academic Staff College or similar centers | No File Uploaded |
| Upload any additional information | <u>View File</u> |
| Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template) | <u>View File</u> |

6.3.4 - Number of teachers undergoing online/face-to-face Faculty development Programmes (FDP) during the year (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course etc.)

6.3.4.1 - Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course during the year

621

| File Description | Documents |
|---|------------------|
| IQAC report summary | <u>View File</u> |
| Reports of the Human Resource Development Centres (UGCASC or other relevant centers) | <u>View File</u> |
| Upload any additional information | <u>View File</u> |
| Details of teachers attending professional development programmes during the year (Data Template) | <u>View File</u> |

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

The institution has performance-based appraisal system for the assessment of teaching staff. The appraisal report is based on the annual performance on the basis of their academic, research and other extra- curricular activities.

Performance appraisal system for teaching staff

The performance of the faculty is evaluated based on professional contribution to academics, resaerch, contribution to short-term training courses, performing academic/examination duties, contribution to college/university administrative bodies, outreach /extension activities . In every year, faculty credentials are collect, analyse and suggests the measures for improvements. Annual self-apprisals were submitted by faculty for their placements/promotions. The teacher performance is appraised through his innovative methodologies in classroom lectures, seminars, tutorials, course delivery, question paper setting and evaluation, updating of materials etc. Besides, student feedback and pass percentage of the course are also considered. A talk on 'Faculty Performance Appraisal Systems / Issues and Problems in Student Feedback Systems and Strategies to use it for Improvement in Teaching Effectiveness' by Prof. Prem Verat, AICTE Distinguished Chair Professor was organized on 7th August 2021.

| File Description | Documents |
|---------------------------------------|------------------|
| Paste link for additional information | Nil |
| Upload any additional information | No File Uploaded |

6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly Enumerate the various internal and external financial audits carried out during the year with the mechanism for settling audit objections within a maximum of 200 words

The institution undergoes three types of financial audits:

- 1. Internal audit by a Chartered Accountant firm.
- 2. External Audit by the Directorate of TechnicalEducation, Government of Kerala, Thiruvananthapuram.
- 3. External Audit by the Office of the Accountant General, Government of India, Thiruvananthapuram.

Allthe above three audits are done yearly by the concerned agency. No majorir regularities have been raised by the authorities. In addition to this, theinstitution is having consultants to give an opinion on taxation and legalissues.

| File Description | Documents |
|---------------------------------------|------------------|
| Paste link for additional information | Nil |
| Upload any additional information | No File Uploaded |

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

6.4.2.1 - Total Grants received from non-government bodies, individuals, Philanthropers during the year (INR in Lakhs)

373.89096

| File Description | Documents |
|--|------------------|
| Annual statements of accounts | <u>View File</u> |
| Any additional information | No File Uploaded |
| Details of Funds / Grants received from of the non- government bodies, individuals, Philanthropers during the year (Data Template) | <u>View File</u> |

6.4.3 - Institutional strategies for mobilization of funds and the optimal utilization of resources

The institution is a Govt. Aided College. The regular employees of the College get full salary from the Govt. of Kerala, Dept. of Technical Education.

Apart from this, the resource mobilization is mainly through the following:

- 1. Fee from students
- 2. Contributions from Association of Alumni of the Institutions
- 3. Overhead charges from projects
- 4. Consultancy charges
- 5. Contributions from TKM Trust
- 6. Registration fee from various programs

| File Description | Documents |
|---------------------------------------|------------------|
| Paste link for additional information | Nil |
| Upload any additional information | No File Uploaded |

6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

The activities and initiatives by IQAC after the previous IQAC meeting (till 18 August 2021) are:

Activities and Initiatives

- 1. The IQAC is reconstituted with Dr. Adarsh S, Associate Professor of Civil Engineering as the coordinator on 12.03.2021. The new IQAC started functioning in March 2021. Excellent initiatives to channelize the activities of IQAC, made by Dr. Sadiq A and the team are acknowledged. The IQAC coordinated the last phase of NIRF 2021 submission and the result of the same is awaited.
- 2. Accreditation status of PG programmes in Mechanical Engineering (IRCE) and Civil Engineering (SE&CM) has been extended till 30 June 2021 by NBA.
- 3. Submitted for India Today Ranking 2021. We stood (i) First place in Engineering College for Best Value for Money; (ii) the colleges offering lowest fee; (iii) positioned at 98th place in the Private Engineering Colleges (Over 200 colleges all over India were listed for ranking)
- 4. The Annual Quality Assurance Report (AQAR) for the AY 2019-20 in February 2021 to the NAAC in final form and the same is approved.
- 5. The institution has submitted the Application for Academic Autonomy status in December 2020. The preparations for the UGC team visit are in progress. The document collection and its final level verification is completed.
- 6. Coordinated training on "Developing the Curriculum and Syllabus Accounting OBE concept" on 10th August 2021. Er Sivakumar V,

Page 65/80 20-06-2022 06:58:31

Associate professor, NITTR handled the session.

- 7. As one of the key initiatives, we introduced the Excel based system for documentation on faculty /student's credentials. Collected a database on faculty and students' credentials of 2015-21 is now available on desk. Some departments started maintaining the corresponding supporting documents in Google drive. It is being planned to link with D-Space purchased by central library of TKM CE to store the supporting documents
- 8. All classes are being conducted through the single AMS ETLab. Live online classes are being conducted through Google Meet as per published schedule. ETLab by Etuwa Concepts Pvt. Ltd. is the AMS of the campus. Monitoring and improvisation of its performance in different levels is in progress. Some of the key issues related to the appearance of website (related to faculty credentials is in place)
- 9. Conducted student satisfaction survey (as per the template published by NAAC) for all the final year students of 2021 passed out batch
- 10. The faculty credentials of 2020-21 academic year are collected.
- 11. E- Academic Auditing of all the completed semesters was performed on 11th August 2021
- 12. The 12th Meeting of IQAC of TKM CE was held on 18th August 2021 in hybrid mode.

Apart from the above, IQAC has given recommendations on the conduct of trainings on autonomy and on the conduct of AICTE DCP lecture series.

| File Description | Documents |
|---------------------------------------|------------------------------|
| Paste link for additional information | https://tkmce.ac.in/igac.php |
| Upload any additional information | <u>View File</u> |

6.5.2 - The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

Page 66/80 20-06-2022 06:58:31

The institution meticulously plans for effective implementation of the curriculum. The process is detailed 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 byan academic budget which enlists the academic programs for the respective semester with a budget planning. The College Planning Committee (CPC) scrutinizes and approves the budgets of programs listed and is forwarded to the Principal for necessary allocation of funds to individual departments. Before the end of current semester, the courses for next semester from curriculum are allotted 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 courses, which in turn is consolidated by the Senior Advisor and presented to DAC. The opted courses are allocated to faculty based on their field of specialization, number of times the course taught and experience. In the beginning of each semester, a course plan is repared. The concerned faculty for each course 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 Etlab (the campus management software) and college website. These can be easily accessed by the students. Course files are prepared and maintained by the faculty whichin cludes syllabus, course plan, teaching materials, 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. TheDepartment Quality Assurance Cell (DQAC) approves the course plan for various courses and scrutinizes the question papers submitted for continuous evaluation(Two Internal assessment test). Academic Committee monitors the functioning of the course committee and class committees. The course committee reviews 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 needed for the successful conduct of the course are decided by DQAC The parents and students can access Etlab AMS using the login provided to them to know about

the academic progress. Mid-term and end-term feedbacks for Teachers' Evaluations are collected from students and analysis is done for improving theteaching-learning process. The Institute has student chapters of professional societies like IEEE, ISTE, IEI, MEA, IGS, IETE, IIChE, CSI, SAE which organise co-curricular activities for skill up-gradation and to inculcate a social commitment in the students. The NPTEL student chapter assist the students to enroll and successfully complete the MOOC based learning courses by IITs.

| File Description | Documents |
|---------------------------------------|------------------|
| Paste link for additional information | Nil |
| Upload any additional information | No File Uploaded |

6.5.3 - Quality assurance initiatives of the institution include: Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analyzed and used for improvements Collaborative quality initiatives with other institution(s) Participation in NIRF any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

A. All of the above

| File Description | Documents |
|--|--|
| Paste web link of Annual reports of Institution | https://tkmce.ac.in/uploads/govern- body/2020%20Minutes.pdf |
| Upload e-copies of the accreditations and certifications | <u>View File</u> |
| Upload any additional information | No File Uploaded |
| Upload details of Quality assurance initiatives of the institution (Data Template) | <u>View File</u> |

INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 - Institutional Values and Social Responsibilities

7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

Page 68/80 20-06-2022 06:58:31

Gender equity in education means that males and females have equal opportunities in terms of economic, social, cultural, and political developments. If gender equity is exactly achieved this will contribute to the future of girls and boys more than approaches men-centered, and girls will get benefits from public and domestic life as much as boy.

Women Cellis a community of girl students in T K M College of Engineering, who share a common purpose to learn, educate and collaborate on ideas that have the power to effect meaningful and positive change while fighting the odds they face. It is an expanding network that brings them together to learn, laugh, and celebrate their authentic self, their unique gifts and their personal power. In view of the increasing number of girl students in the campus, Women Cell makes every effort to ensure that the girls feel free at home.

We strongly believe that women and men have right to live as free and equal human beings and this equality should exist in all areas of life. All the activities conducted by the cell are directed towards successful execution of this goal.

The Women's Cell consist of Convener (senior women faculty), two women faculties and student representatives from all departments & years.

Objectives of Women's Cell of T K M College of Engineering:

- To enhance the self-esteem and self-confidence of girl students, women faculty and staff.
- To foster decision-making ability in girl students for making informed choices in areas like education, employment and health.
- To enlighten the women students about their legal rights and to strive towards the empowerment of the women through the promotion of gender amity and programmes concerning women welfare.
- To encourage the Students to express their grievances/ problems freely and frankly, without any fear of being victimized.
- To conduct various awareness programmes, seminars, soft skill development programmes etc.
- To give proper counseling for students if necessary.
- To create awareness among girl students regarding issues related to Women health.

• Provide coaching to students in special skills which involves craft, and other aesthetic skills.

Annual gender sensitization action plan and specific facilities provided for women

TKM College of Engineering (TKMCE) Kollam ensures that all curricular, co-curricular and extracurricular activities are treated equally for ladies and men. TKMCE, through its faculty, staff and student programs, will look into the following:

- Provide Staff / Senior advisor/HoD/psychologist counselling for students or faculty members
- Provided Grievance Redressal Cell for both faculty and students
- Anti-Sexual Harassment Committee
- Separate Gymnasium for ladies
- Common Amenities for women's
- Excellent hostel facilities for girls with 24-hour internet facility
- Equal hostel timing for girls and boys
- Conducting webinar/induction programs to give awareness to students about the important of gender equity
- Promote communication while respecting human dignity and social accountability.
- Lead workshops that promote gender equality diversity and communication for members and employees.
- CCTV surveillance is provided in the main campus and major areas of hostels

| File Description | Documents |
|---|-----------|
| Annual gender sensitization action plan | Nil |
| Specific facilities provided for women in terms of:a. Safety and security b. Counseling c. Common Rooms d. Day care center for young children e. Any other relevant information | Nil |

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation measures Solar energy Biogas plant Wheeling to the Grid Sensorbased energy conservation Use of LED bulbs/

A. 4 or All of the above

power efficient equipment

| File Description | Documents |
|--------------------------------|------------------|
| Geo tagged Photographs | <u>View File</u> |
| Any other relevant information | No File Uploaded |

7.1.3 - Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 200 words) Solid waste management Liquid waste management Biomedical waste management E-waste management Waste recycling system Hazardous chemicals and radioactive waste management

Waste collection bins are placed at various corners of the institution and campus to collect the food waste, biodegradable and non-biodegradable wastes produced inside the campus. Food waste is the main resource for biogas generation associated with canteen as well as hostel mess. Plastics and other e-wastes are collected and handover to the corporation waste collection team. Liquid wastes generated in hostels are effectively treated in an effluent treatment plant (ETP) before disposal for gardening purposes.

| File Description | Documents |
|---|------------------|
| Relevant documents like agreements / MoUs with Government and other approved agencies | No File Uploaded |
| Geo tagged photographs of the facilities | No File Uploaded |

7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus

C. Any 2 of the above

| File Description | Documents |
|---|------------------|
| Geo tagged photographs / videos of the facilities | No File Uploaded |
| Any other relevant information | <u>View File</u> |

7.1.5 - Green campus initiatives include

7.1.5.1 - The institutional initiatives for

B. Any 3 of the above

greening the campus are as follows:

- 1. Restricted entry of automobiles
- 2. Use of bicycles/ Battery-powered vehicles
- 3. Pedestrian-friendly pathways
- 4. Ban on use of plastic
- 5. Landscaping

| File Description | Documents |
|--|------------------|
| Geo tagged photos / videos of the facilities | No File Uploaded |
| Various policy documents / decisions circulated for implementation | <u>View File</u> |
| Any other relevant documents | <u>View File</u> |

7.1.6 - Quality audits on environment and energy are regularly undertaken by the institution

7.1.6.1 - The institutional environment and energy initiatives are confirmed through the following 1.Green audit 2. Energy audit 3.Environment audit 4.Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities

D. Any 1 of the above

| File Description | Documents |
|---|------------------|
| Reports on environment and energy audits submitted by the auditing agency | <u>View File</u> |
| Certification by the auditing agency | No File Uploaded |
| Certificates of the awards received | No File Uploaded |
| Any other relevant information | View File |

7.1.7 - The Institution has disabled-friendly, barrier free environment Built environment with ramps/lifts for easy access to classrooms. Disabled-friendly washrooms Signage including tactile path, lights, display boards and signposts Assistive technology and facilities for persons with disabilities

B. Any 3 of the above

(Divyangjan) accessible website, screenreading software, mechanized equipment 5. Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading

| File Description | Documents |
|--|------------------|
| Geo tagged photographs / videos of the facilities | <u>View File</u> |
| Policy documents and information brochures on the support to be provided | No File Uploaded |
| Details of the Software procured for providing the assistance | No File Uploaded |
| Any other relevant information | No File Uploaded |

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 200 words).

TKM College of Engineering has always been at the forefront of increasing students' awareness of the cultural, regional, linguistic, community and socio-economic diversity of the state and nation. The institution believes in the equality of all cultures and traditions as evidenced by the fact that students of diverse castes, religions, regions study without discrimination. The College always encourages students to organize and participate in different programs organized by college, inter-college, university and other governmental or non-governmental bodies to increase their awareness of cultural, regional, linguistic, community and socioeconomic diversity.

The collge organizes technical and Cultural festival. NSS Units of our college participate in various programmes related to social issues organized by other colleges.

| File Description | Documents |
|--|------------------|
| Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution) | No File Uploaded |
| Any other relevant information | No File Uploaded |

7.1.9 - Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens

TKM College of Engineering takes every initiative possible by organizing various events and programs to educate students and staff to become responsible citizens of the country through awareness-raising about the country's constitution. As responsible citizens of the country, students are motivated to participate in various college events. The college encourages students to take part in blood donor camps, study tours for them, which help them understand the importance of protecting the country's cultural heritage.

Constitution Day is celebrated annually on November 26. The program begins with the reading of the Preamble to the Constitution followed by lectures on student awareness of responsibility for constitutional values, rights, duties and responsibilities of citizens.

| File Description | Documents |
|--|--|
| Details of activities that inculcate values; necessary to render students in to responsible citizens | Nil |
| Any other relevant information | https://www.tkmce.ac.in/student- achievements-cse.php |

7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff 4. Annual awareness programmes on Code of Conduct are organized

C. Any 2 of the above

| File Description | Documents |
|--|------------------|
| Code of ethics policy document | <u>View File</u> |
| Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims | No File Uploaded |
| Any other relevant information | No File Uploaded |

7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

TKM College of Engineering celebrates/organizes national and international commemorative days, events and festivals. Every year 26th January, 15th August, 2nd October are the major commemorable daycelebrations in the campus.

| File Description | Documents |
|---|------------------|
| Annual report of the celebrations and commemorative events for the last (During the year) | No File Uploaded |
| Geo tagged photographs of some of the events | <u>View File</u> |
| Any other relevant information | No File Uploaded |

7.2 - Best Practices

7.2.1 - Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

Best practices successfully implemented

1. Title of the Practice

Adopting Outcome Based Education (OBE) for the effective teaching-learning process

- 2. Objectives of the Practice
 - To define outcomes of learning accurately and precisely.
 - To organize the curriculum, instruction, and assessment

right from the beginning to make sure that the learning outcomes are achieved.

To develop a culture of continuous improvement.

3. The Context

Outcome based education (OBE) is a student-centric instructional model that focuses on measuring student performance through outcomes. At the University, we use Revised Bloom's Taxonomy for implementing the OBE. Its focus is on evaluation of outcomes of the programme by stating the knowledge, skill and behavior a graduate is expected to attain upon completion of a programme. In the OBE model, the required knowledge and skillsets for a particular programme is predetermined and the students are evaluated for all the required outcomes during the course of the programme. We adopted this approach way back in 2013 and now it has matured.

4. The Practice

The attainment of OBE is assessed by the assessment of PO attainment criteria defined by the National Board of Accreditation (NBA). The PO attainment of all the passed-out batches is calculated within the stipulated period and submitted to IQAC. Based on the attainment, the improvement required POs are reviewed by the accreditation team and take action to improve for the following batch of students of the programme.

5. Evidence of Success

Through the best practice of OBE, the two UG programmes namely Civil Engineering and Mechanical Engineering obtained 6 years of accreditation from NBA. Also, other UG Programmes namely Computer Science and Engineering, Electronics and Communication Engineering, Production Engineering, and Electrical and Electronics Engineering obtained 3 years of accreditation, which also extended to 2 more years.

6. Problems Encountered and Resources Required

Research funding and industrial sponsored laboratories are the major tasks to achieve for the OBE. Hence, to enhance these criteria, the institution took the strategic plan to enhance the industry-institution interactions through MoUs and Students, Faculty exchange programmes.

1. Title of the Practice

Student mentoring system through Advisory as well as Alumni to enhance the teaching-learning process and institutional social responsibility (ISR).

2. Objectives of the Practice

- To mentor students through advisory system with one faculty advisor for 30 students.
- To interact with alumni chapters of local as well as global that inculcate responsible engineer for a better society

3. The Context

The bond develops between students and faculty of TKM CE helps to build a strong institution-alumni relationship. Our alumni contribute well for ISR and student support and the initiatives for enhancing research facilities and placements need to be structured

4. The Practice

a) Student Mentoring System:

A robust student mentoring system with one faculty advisor for a group of 30 students is one of the key features of this institute. The teacher-student relationship is excellent in the campus. Students very much interact with faculty and faculty support their students even in their personal needs and affairs. The faculty members are very much aware of even the family details of their students.

b) Financial Support for Needy Students:

The financial support given to the needy students of the college is another different aspect of this college. There is Merit-cummeans scholarship given for deserving students of the campus. The fund for the Merit-cum-means scholarship is developed exclusively from the contribution from the monthly salary of every staff of the college. There is Endowments/Scholarships also instituted by retired faculty and alumni of this college. Students are encouraged and are financially supported for undertaking Internships and participating/presenting papers at Internationally

acclaimed Universities/Conferences too.

c) Alumni meet and consistent interactions

Alumni are the real ambassadors and strength of TKMCE who are working at various organizations as well as entrepreneurs in India and abroad. More than 30,000 alumni members throughout various alumni chapters over the globe. They, directly and indirectly, support their juniors for a better future.

5. Evidence of Success

The Responsibility and Commitment to the Society

The responsibility and commitment to the society is another highlight of this institute. Humanitarian activities are undertaken by the students and faculty of all Departments in collaboration with TKM Trust and various professional organizations. The real value of institutional extension activities was tested during the difficult times of the great floods in the Kerala state and during the CoViD-19 pandemic. 'Backto Home' Project and 'Back-to-School' Project are examples of such initiatives during the difficult time of flood in 2018 and 2019. As a part of the 'Back-to-Home' Project, the management, faculty, students and alumni joined hands to construct 16 houses amounting to an expenditure of Rs.1.12 crores for the most needy who had lost their dwellings in the massive floods of 2018 and 2019. The 'Back-to-School' Project was another notable extension activity after the flood. The 'Back-to-School ' Project initiated by the college was meant to ensure that no child drops out of school due to loss of books and stationery during the floods. Thousands of school kits were distributed to needy school students in the areas worst affected by the floods. This was in addition to the other monetary and technical help rendered by the TKMCE community.

6. Problems Encountered and Resources Required

Effective advisory and mentoring only give good results and responses to the students. Active interactions weekly and review of the progress of mentoring to take remedial actions should come into force for a responsible engineer. Coordination of alumni meetings and consistent interactions can only contribute more impacts on students.

Page 78/80 20-06-2022 06:58:31

| File Description | Documents |
|---|------------------------------|
| Best practices in the Institutional website | https://tkmce.ac.in/igac.php |
| Any other relevant information | Nil |

7.3 - Institutional Distinctiveness

7.3.1 - Portray the performance of the Institution in one area distinctive to its priority and thrust within 200 words

Enhancement of research credentials is one of the thrust areas where the institution is focusing in the past few years. We have collected faculty credentials and analysed them critically. Department wise meetings with faculties were conducted and the necessity of enhancing number of quality publications, uniform contributions, the scope for joint and interdisciplinary publications etc was conveyed. As a motivation, small incentives were given to faculties, who published papers in SCI journals. The faculties with PhD were encouraged to obtain guideship at the earliest. A progressive increase is noticed in the number of PhD scholars admitted in the institution in the past few years. The requirements of faculties were also collected and initiatives were taken to enhance the research facilities. The facilities of water research laboratory, Hydroinformatics laboratory, energy research centre, centre for robotics etc were enhanced as a part of this initiative. Inculcating research culture among UG students was a good practice was noticed to be followed in some departments. It was noticed that multiple SCI journals were resulted with students' participation in the past few years. By focused initiatives, faculties could get over 25 joint publications in SCI journals, with faculties of abroad universities in the recent past. Expertise from Canada, Iran, UK, USA etc were invited as chief guests for international conferences organized by the institution, through which we could enter into MoUs with such universities. We have developed the Centre for Artificial Intelligence with good computational facilities to promote interdisciplinary research. Also, a PG programme in Artificial Intelligence we have started in 2020. The Centre for water resources in the department of civil engineering has contributed well in research through a very good number of SCI publications and international collaborations in the recent past.

Page 79/80 20-06-2022 06:58:31

| File Description | Documents |
|--|------------------|
| Appropriate web in the Institutional website | No File Uploaded |
| Any other relevant information | No File Uploaded |

7.3.2 - Plan of action for the next academic year

- 1. Renewal of NBA accreditation of all branches to five years
- 2. Renewal of NAAC accreditation to A+ or above
- 3. Prepare the institution for Institutional Ranking like NIRF
- 4. Develop more research labs in the institution
- 5. Formation of consultancy cells and alumni cells in departments and ensure effective functioning of the same
- 6. Apply for more research funding
- 7. Aligning with the vision of NEP2020, acquireacademic autonomy and start implementing it effectively
- 8. Establish AICTE idea lab
- 9. Establish a Skill Development Centre to provide distant education for the needy learners.
- 10. Establish a nodal center of virtual lab in association with MHRD Virtual Labs and other nodal centers