



## Yearly Status Report - 2018-2019

### Part A

#### Data of the Institution

<b>1. Name of the Institution</b>		JYOTHI ENGINEERING COLLEGE
Name of the head of the Institution		Fr. Dr. Jaison Paul Mulerikkal CMI
Designation		Principal
Does the Institution function from own campus		Yes
Phone no/Alternate Phone no.		04884259000
Mobile no.		7561888936
Registered Email		info@jecc.ac.in
Alternate Email		iqac@jecc.ac.in
Address		JYOTHI HILLS CHERUTHURUTHY,
City/Town		THRISSUR
State/UT		Kerala
Pincode		679531
<b>2. Institutional Status</b>		

Affiliated / Constituent	Affiliated
Type of Institution	Co-education
Location	Rural
Financial Status	private
Name of the IQAC co-ordinator/Director	Dr. Vinith R
Phone no/Alternate Phone no.	04884259000
Mobile no.	9061406729
Registered Email	iqac@jecc.ac.in
Alternate Email	info@jecc.ac.in

### 3. Website Address

Web-link of the AQAR: (Previous Academic Year)	<a href="http://www.jecc.ac.in/iqac/aqar">http://www.jecc.ac.in/iqac/aqar</a>
<b>4. Whether Academic Calendar prepared during the year</b>	Yes
if yes,whether it is uploaded in the institutional website: Weblink :	<a href="http://www.jecc.ac.in/iqac/academiccalendar18-19">http://www.jecc.ac.in/iqac/academiccalendar18-19</a>

### 5. Accreditation Details

Cycle	Grade	CGPA	Year of Accreditation	Validity	
				Period From	Period To
1	B+	2.54	2016	16-Sep-2016	15-Sep-2021

<b>6. Date of Establishment of IQAC</b>	10-Oct-2016
---	-------------

### 7. Internal Quality Assurance System

Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries
Prepare the AQAR for the year 2018-19	02-Jul-2018 365	487
Internal Examination quality assurance steps	02-Jul-2018 365	113

by IQAC		
Conduct Internal academic audit	05-Nov-2018 6	113
Faculty sensitization to OBE by ascertaining that outcomes and Bloom	02-Jul-2018 365	113
Regular IQAC meetings	26-Oct-2018 1	17
Regular IQAC meetings	15-Nov-2018 1	17
Regular IQAC meetings	04-Feb-2019 1	17
Regular IQAC meetings	19-Mar-2019 1	17
No Files Uploaded !!!		

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

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Dr. Anitha Jacob	Engineering and Technology Program	KSCSTE	2016 730	1270000
Fr. Dr. Jaison Paul Mulerikkal CMI	Department of science and Technology	DST	2018 1825	2496000
Ms. Aswathy Wilson	Innovate 2019	KSCSTE	2018 365	7000
Mr. Fepsilin Athish Mon	Innovate 2019	KSCSTE	2018 365	7000
Ms. Divya Menon	Yuva Mastermind	Manorama	2018 90	10000
Ms. Aswathy Wilson	Yuva Mastermind	Manorama	2018 90	10000
Mr Jinesh K J	Innovate 2019	KSCSTE	2018 365	8000
No Files Uploaded !!!				

**9. Whether composition of IQAC as per latest NAAC guidelines:**

Yes

Upload latest notification of formation of IQAC

[View File](#)

**10. Number of IQAC meetings held during the year :**

4

The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	No												
Upload the minutes of meeting and action taken report	No Files Uploaded !!!												
<b>11. Whether IQAC received funding from any of the funding agency to support its activities during the year?</b>	No												
<b>12. Significant contributions made by IQAC during the current year(maximum five bullets)</b>													
<p>The IQAC along with senior academic team periodically review the internal evaluation system to encourage analytical thinking and creativity among students.</p> <ul style="list-style-type: none"> <li>• Systematic and periodic review of the teachinglearning process at the end of every semester</li> <li>• Inviting and incorporating feedback from students on teaching and learning process.</li> <li>• Proposed to start a learning material repository</li> </ul>													
No Files Uploaded !!!													
<b>13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year</b>													
<table border="1"> <thead> <tr> <th>Plan of Action</th> <th>Achivements/Outcomes</th> </tr> </thead> <tbody> <tr> <td>Prepare the AQAR for the year 201819</td> <td>AQAR report is ready for submission</td> </tr> <tr> <td>Proposed reforms in the internal examination system by having a separate portal for question submission integrated with the MIS of the institute.</td> <td>The first set has already been prepared and is integrated with the Campus Book for easy dissemination of the study material.</td> </tr> <tr> <td>Preparation of NBA related documents for Civil Engineering Department slated to go for accreditation coming semester.</td> <td>SAR and other related preparatory work done.</td> </tr> <tr> <td>Improvement in research ambience of the institute by setting up exclusive research programmes in coordination with research cell</td> <td>Journal club set up.</td> </tr> <tr> <td colspan="2" style="text-align: center;">No Files Uploaded !!!</td> </tr> </tbody> </table>		Plan of Action	Achivements/Outcomes	Prepare the AQAR for the year 201819	AQAR report is ready for submission	Proposed reforms in the internal examination system by having a separate portal for question submission integrated with the MIS of the institute.	The first set has already been prepared and is integrated with the Campus Book for easy dissemination of the study material.	Preparation of NBA related documents for Civil Engineering Department slated to go for accreditation coming semester.	SAR and other related preparatory work done.	Improvement in research ambience of the institute by setting up exclusive research programmes in coordination with research cell	Journal club set up.	No Files Uploaded !!!	
Plan of Action	Achivements/Outcomes												
Prepare the AQAR for the year 201819	AQAR report is ready for submission												
Proposed reforms in the internal examination system by having a separate portal for question submission integrated with the MIS of the institute.	The first set has already been prepared and is integrated with the Campus Book for easy dissemination of the study material.												
Preparation of NBA related documents for Civil Engineering Department slated to go for accreditation coming semester.	SAR and other related preparatory work done.												
Improvement in research ambience of the institute by setting up exclusive research programmes in coordination with research cell	Journal club set up.												
No Files Uploaded !!!													
<b>14. Whether AQAR was placed before statutory body ?</b>	Yes												
<table border="1"> <thead> <tr> <th>Name of Statutory Body</th> <th>Meeting Date</th> </tr> </thead> <tbody> <tr> <td>COLLEGE COUNCIL</td> <td>17-Dec-2019</td> </tr> </tbody> </table>		Name of Statutory Body	Meeting Date	COLLEGE COUNCIL	17-Dec-2019								
Name of Statutory Body	Meeting Date												
COLLEGE COUNCIL	17-Dec-2019												
<b>15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to</b>	Yes												

assess the functioning ?	
Date of Visit	09-Feb-2019
<b>16. Whether institutional data submitted to AISHE:</b>	Yes
Year of Submission	2012
Date of Submission	24-Oct-2012
<b>17. Does the Institution have Management Information System ?</b>	Yes
If yes, give a brief description and a list of modules currently operational (maximum 500 words)	<ul style="list-style-type: none"> <li>• The college has a well comprehensive and well integrated Management Information System, the Campus BookAn Enterprise Resource Planning (ERP) software, which is developed and maintained by the faculty and the IT division of the college. Campus Book is a web application running on PHP MySQL and has several features that are useful to the management and the teachers. The CampusBook maintains the records of student's personal information, academic history, the attendance, and the marks. Various reports can be generated based on the needs of the concerned teaching staff. Entire official and nonofficial correspondence are available through Campus Book promoting an ecofriendly campus</li> <li>• Staff related data including personal information, areas of interest, subjects handled, research activities and several other academic activities related information are accessible through the software. A skill inventory is maintained so that the right people for a task can be selected from a pool of faculty members or other staff with skills that are required for the job.</li> <li>• Students are given individual login to access the learning material repository and also view their attendance reports and internal marks. They get updated with latest notices through this software. Application for sanction of various internships is done through their logins.</li> <li>• A comprehensive learning material repository is accessible through the Campus Book software. University question papers of previous</li> </ul>

years along with the suggested answers are available through the Campus Book to guide the students in their preparation. Information such as the schedule of remedial classes, summer courses, placement activities, summer projects, internships, funded projects are disseminated through the software. The Calendar shows the detailed list of activities scheduled for a month. It also includes facilities for generating summary reports for HODs and the Principal.

- Enquiry of availability of the main library books is through OPAC which is linked to Campus Book software. The software also provides access to facilities in main library (EBooks, University question papers, NPTEL Videos etc). A well established digital library is set up to access online journals and to do MOOC courses.
- The software also links to an appropriate repository from where the bookings for rooms, seminar halls and other physical infrastructural facilities can be accessed. It also provides the convenience of informing the needy of the available free slots.
- There are several other software for the proper functioning of the institution. The admission software (JAS) takes care of the complete admission process from registration to allotment of management seats. The Account keeping Software is used for the accounting purposes in the Institution. The inventory for the Institution store is maintained through separate software.

## Part B

### **CRITERION I – CURRICULAR ASPECTS**

#### **1.1 – Curriculum Planning and Implementation**

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

The college follows a curriculum prepared by the university. The APJ Abdul Kalam Technological University to which the college is affiliated practises significant degree of decentralization and its academic administration is organised in the form of clusters and the college is under the Palakkad cluster of KTU. Each cluster has significant autonomy in designing and developing curriculum subject to the approval by the KTU central academic committee. The university, typically at the end of every academic year requests the teachers in the affiliated colleges for feedback on the existing courses and the need for revision as well as the introduction of new courses. The faculty of the college actively participates in this activity by suggesting modifications in

the existing courses and by preparing syllabus for new courses. The purpose of this revision is to enhance the employment potential of the graduates and takes into account the feedback from the industry. The faculty members in the institution is encouraged to identify the gaps in the syllabi and these additional components offered in the course beyond what is prescribed in the curriculum goes a long way in enhancing the employability of the graduates. Teaching and learning process have enhanced by various Faculty Development Programs on recent updates in technology conducted by eminent experts from academic and industry. Add-on courses and invited talks help the students to meet experts in a specific area. Through NPTEL videos , MOOC courses and webinars students get a sound information about the recent activities in the world and can improve their skills

#### 1.1.2 – Certificate/ Diploma Courses introduced during the academic year

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employ ability/entrepreneurship	Skill Development
Assistant Electrician PMKVY	Nil	01/01/2019	210	employability	Electrical Wiring

### 1.2 – Academic Flexibility

#### 1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction
BTech	NIL	01/08/2018
No file uploaded.		

#### 1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BTech	CE, CSE, ECE, EEE, ME, MR	01/08/2018

#### 1.2.3 – Students enrolled in Certificate/ Diploma Courses introduced during the year

	Certificate	Diploma Course
Number of Students	Nil	Nil

### 1.3 – Curriculum Enrichment

#### 1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
Expert talk on Leaving no one behind	23/03/2019	40
An Invited talk on Traffic Signalling System	15/02/2019	35
A Talk on "Personality Development and Psychological issues"	31/01/2019	140
A Technical talk on "Rehabilitation of RCC Structures and "High strength Concrete"	02/02/2019	62

Website designing	07/11/2018	15
Machine learning	07/11/2018	12
Arduino programming	07/11/2018	9
Recent Trends in Telecommunication	01/03/2019	56
Emerging Trends in Microelectronics	15/02/2019	96
Artificial intelligence, deep learning edge AI	04/09/2018	56
<a href="#">View File</a>		

### 1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BTech	CE	75
BTech	CSE	123
BTech	ECE	190
BTech	EEE	78
BTech	ME	264
BTech	MECHATRONICS	7
<a href="#">View File</a>		

## 1.4 – Feedback System

### 1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	No
Employers	Yes
Alumni	Yes
Parents	Yes

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

Feedback Obtained
<p>Evaluation of the teachers by the students is being done using online student feedback system twice in a semester. The students are asked to give unbiased and honest feedback. The process is transparent and does not disclose student identity. The students evaluate the teachers in the following context: • Engage lectures regularly on time • Overall appearance and personal Communication Skills • Explanation • Use of supplementary methods • Readiness to address student doubts • Availability • Use of black board • Relationship with students After collecting the online feedback from the students, the evaluation of the teacher is done by Quality Improvement Cell and teachers are evaluated based on the overall performance in the following categories: Evaluation Grade Grade points Excellent A 5 Very Good B 4 Good C 3 Fair D 2 Satisfactory E 1 The complete report of all the Departments reaches Principal and the report of respective department is submitted to their respective Head of Department. The teachers with other grades introspect themselves and improve in the concerned areas. A class committee meeting is conducted twice during each semester</p>



including the Head of Department, 6 students representing the class and the concerned faculties on each subject. The students and the faculties can raise their concern on various issues related to academic and general matters. Verbal feedback is collected from the students during lectures and practical hours and the same is discussed with concerned head and necessary corrective action is initiated. Head of Department discusses the feedback with the concerned faculty for improvement

## CRITERION II – TEACHING- LEARNING AND EVALUATION

### 2.1 – Student Enrolment and Profile

#### 2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
BTech	CSE	126	305	92
Mtech	CSE	18	20	7
BTech	ECE	126	305	44
Mtech	COMMUNICATION ENGG AND SIGNAL PROCESSING	18	10	4
BTech	EEE	63	305	28
Mtech	POWER ELECTRONICS	18	8	4
BTech	ME	126	305	87
BTech	MR	63	305	40
BTech	CIVIL	66	305	50
Mtech	TRANSPORTATION ENGINEERING	18	30	18

[View File](#)

### 2.2 – Catering to Student Diversity

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

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2018	341	12	91	3	19

### 2.3 – Teaching - Learning Process

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

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Number of smart classrooms	E-resources and techniques used
113	113	4	32	32	5

No file uploaded.

No file uploaded.

2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

A well defined mentoring system exists in the departments. Mentoring is done by tutor after each sessional exam. Each tutor is allotted around thirty students. Academically weak students are counselled by their mentor. They are counselled to improve their academic performance by modifying their study habits after taking in to consideration their performance in the tests. Remedial classes are arranged for the students those who need to be monitored efficiently. The academically bright students are motivated to do exceptionally well in the university exams. Each department has a counselling room for mentoring purpose.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
341	113	1:3

## 2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
144	121	23	9	23

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year )

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2019	Aswathy Wilson	Assistant Professor	Chhathra Viswakarma Award held at AICTE , New Delhi.
2019	Jinesh K J	Assistant Professor	Third prize for project in KERALA TECHNOLOGICAL UNIVERSITY Techfest.
2019	Dr. Deepan Raj B	Associate Professor	Got Indian Patent No.310171 titled A Biodiesel Fuel Blend Composition Comprising of Prickly Poppy Methyl Ester (PPME), Ethanol and Diesel.
2019	Dr. Deepan Raj B	Associate Professor	Selected as the Guest Editor for the Special Issue on "Energy provision from organic by-products, residues and wastes in Asia" in Biomass Conversion and Bio refinery Journal

			published by Springer Nature.
2019	Dr. Deepan Raj B	Associate Professor	Selected as the Guest Editor for the Special Issue on "WEECON19: Special Issue on: Science, Technology and Innovation for Sustainable Development" in World Review of Science, Technology and Sustainable Development published by Inderscience.
2018	Dr. Deepan Raj B	Associate Professor	IRDP best researcher national award
<a href="#">View File</a>			

## 2.5 – Evaluation Process and Reforms

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

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
BTech	UG	S1/S3/S5/S7	31/12/2018	31/01/2019
Mtech	PG	S1/S3	31/12/2018	31/01/2019
<a href="#">View File</a>				

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

In each semester two internal tests and a model exam have been conducted. Model exams are conducted to make the students ready to face the end semester exams. Also, continuous evaluation of students for each subject is done by respective faculty through assignments, seminars, etc. A separate Examination cell is constituted for the smooth conduct of the internal exams. End semester examination has been conducted by the university during the two time periods one in April to May and the other in November to December.

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

The Academic Calendar shows the detailed list of activities scheduled for a semester. College level Academic calendar contains common event schedules. Each department prepares department level calendars which are specific to department events. Information such as the schedule of assignments, internal examinations, submission of project reports, remedial classes etc will be included in the academic course calendar. IQAC conducts Internal audits to monitor the same..

## 2.6 – Student Performance and Learning Outcomes

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

[https://www.jecc.ac.in/departments/civil\\_engineering](https://www.jecc.ac.in/departments/civil_engineering)

## 2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
UG	BTech	CE	68	49	72.05
UG	BTech	CSE	76	43	56.58
UG	BTech	ECE	55	41	74.54
UG	BTech	EEE	43	26	60.4
UG	BTech	ME	131	90	68.70

[View File](#)

## 2.7 – Student Satisfaction Survey

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

[https://www.jecc.ac.in/campusbook/college\\_feedbacks/view](https://www.jecc.ac.in/campusbook/college_feedbacks/view)

## CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

### 3.1 – Resource Mobilization for Research

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

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Minor Projects	365	KSCSTE	0.14	0.14
Students Research Projects (Other than compulsory by the University)	365	Startup mission	1	1

[View File](#)

### 3.2 – Innovation Ecosystem

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

Title of workshop/seminar	Name of the Dept.	Date
Web Design, Machine Learning, Arduino Programming	CSE	14/11/2018
Innovative approach for effective implementation of student project and its documentation	CSE	17/01/2019
Recent Trends in Telecommunication	ECE	01/03/2019
Artificial intelligence,	ECE	15/02/2019

deep learning edge AI		
FPGA in VLSI	ECE	04/09/2018
Digital Image Processing	ECE	09/08/2018
Fundamentals of Electronics and Communication Systems	ECE	08/08/2018
Emerging Trends in Microelectronics	ECE	15/02/2019

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

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
LYZA FOR WOMEN	Asna Nesry ,Catherine Anto ,Jima Mariya, Bini Maria	Chhatra Viswakarma Awards	09/01/2019	Project
IOT based speed limiter	AmalPrem, Jain Johnson, Harikrishna , Delma Davis	KSCTE	23/01/2019	Project
Currency Recognition Spectacles for Blinds	Mohammed Ashiq Maqbool, Viju Valsan, Mohamed Saajid KM, Kokul Jose, Raveena P	KSCTE	23/01/2019	Project
TREMOR STABILIZATION SPOON FOR PARKINSON SYNDROME AFFECTED PATIENTS, WHICH CAN FUNCTION AS PER THE REQUIREMENTS BASED ON MONITORING OF CONDITIONS.	Dr. Jarin T.	Indian Patent Office	23/11/2018	Patent
A Biodiesel Fuel Blend Composition Comprising of Prickly Poppy Methyl Ester (PPME), Ethanol and Diesel	Dr. Deepan Raj B	Indian Patent Office	28/03/2019	Patent
e-Brallie reader	Prasobh ,Mubashira Olivia	KTU TECH FEST	20/02/2019	Project
Haptic Shoe for blind and elderly	Jisna Joby,Catherine Lenette,Agna E A, Divya shibhu	Yuva master mind Grand finale	15/01/2019	Project

Tiny Bits-a robot for introducing coding to students	Anand Murali, Jeena Varghese, Adwaith K V, Archana Venugopal, Akshay M V and Alwin Joseph	IDEA FEST 2018	10/06/2019	Project
<a href="#">View File</a>				

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

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
JECC	TBI @JECC	Kerala Startup mission	spatez	Software	02/07/2018
<a href="#">View File</a>					

### 3.3 – Research Publications and Awards

#### 3.3.1 – Incentive to the teachers who receive recognition/awards

State	National	International
0	0	0

#### 3.3.2 – Ph. Ds awarded during the year (applicable for PG College, Research Center)

Name of the Department	Number of PhD's Awarded
0	Nil

#### 3.3.3 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
International	CE	5	1
International	CSE	8	0
International	ECE	15	0
International	EEE	5	0
International	ME	3	3.8
<a href="#">View File</a>			

#### 3.3.4 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
CE	2
CSE	1
ECE	3
EEE	3
ME	2
<a href="#">View File</a>	

#### 3.3.5 – Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
Energy and exergy analysis, drying kinetics, modeling and quality parameters of microwave-dried turmeric slices	Dr. Deepanraj B	Journal of Thermal Analysis and Calorimetry	2018	78	Jyothi Engineering College	5
Experimental Investigation on Performance, Combustion and Emission Analysis of a Direct Injection Diesel Engine fuelled with Rapeseed Oil Biodiesel	Dr. Deepanraj B	Fuel	2019	181	Jyothi Engineering College	28
A prototype design of RFID centered Hi-Tech Toll Assortment Plaza	Dr. Jarin T	Mediterranean Journal of Basic and Applied Sciences	2018	0	Jyothi Engineering College	Nil
Evaluation strategies for wireless ultra wideband communication towards orthopedic surgical	Dr. Jarin T	Journal of Medical Imaging and Health Informatics	2018	15	Jyothi Engineering College	Nil

scheme						
Numerical analysis of circularly polarized modes in coreless photonic crystal fiber	Dr.Jarin T	Results in Physics	2019	27	Jyothi Engineering College	2
Evaluation methods for incorporating Non-Deterministic characteristics in PWM strategy of Induction Motor drives and FPGA based experimental implementation	Dr.Jarin T	Journal of Electrical Engineering	2019	23	Jyothi Engineering College	2
Effect of rural highway geometry on driver workload: A step towards safety	Anitha Jacob, KJ Jinesh, Jisha Akkara, Jose P Therattil	Emerging Trends in Engineering, Science and Technology for Society, Energy and Environment	2018	0	Jyothi Engineering College	1
<a href="#">View File</a>						

3.3.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
Energy and exergy analysis, drying kinetics, modeling and quality parameters	Dr. Deepanraj B	Journal of Thermal Analysis and Calorimetry	2018	78	5	Jyothi Engineering College



of microwa ve-dried turmeric slices						
Experime ntal Inves tigation on Perform ance, Combustion and Emission Analysis of a Direct Injection Diesel Engine fuelled with Rapeseed Oil Biodiesel	Dr. Deepanraj B	Fuel	2019	181	28	Jyothi E ngineering College
A prototype design of RFID centered Hi-Tech Toll Assortment Plaza	Dr.Jarin T	Mediterr anean Journal of Basic and Applied Sciences	2018	Nil	Nil	Jyothi E ngineering College
Evaluation strategies for wireless ultra wideband c ommunicati on towards orthopedic surgical scheme	Dr.Jarin T	Journal of Medical Imaging and Health Informati cs	2018	15	Nil	Jyothi E ngineering College
Numerical analysis of circularly polarized modes in coreless photonic crystal fiber	Dr.Jarin T	Results in Physics	2019	27	2	Jyothi E ngineering College
	Dr.Jarin	Journal	2019	23	2	Jyothi E

Evaluation methods for incorporating Non-Deterministic characteristics in PWM strategy of Induction Motor drives and FPGA based experimental implementation	T	of Electrical Engineering				Engineering College
Effect of rural highway geometry on driver workload: A step towards safety	Anitha Jacob, KJ Jinesh, Jisha Akkara, Jose P Therattil	Emerging Trends in Engineering, Science and Technology for Society, Energy and Environment	2018	Nil	1	Jyothi Engineering College
<a href="#">View File</a>						

### 3.3.7 – Faculty participation in Seminars/Conferences and Symposia during the year :

Number of Faculty	International	National	State	Local
Presented papers	15	1	Nil	Nil
Attended/Seminars/Workshops	22	29	50	38
Resource persons	Nil	8	Nil	Nil
<a href="#">View File</a>				

### 3.4 – Extension Activities

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

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
SWACHH BHARAT SUMMER	SWACHH BHARAT SUMMER INTERNSHIP PROGRAMME 2018- by NSS	100	1000
<a href="#">View File</a>			

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

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
Accreditation Process	Best Performing IEDC 2018-19	Kerala Startup Mission	1200
CHHATRA VISHWAKARMA AWARD 2018	2nd Prize in the National Innovation Summit	AICTE	5
KTU TECHFEST	3rd prize in V-Hack, Hackathon	APJ Abdul Kalam Technological University and Kerala State Council for Science Technology and Environment (KSCSTE)	2
Tech Boot	First Prize in Coding contest	Yuvakshetra Institute of Management Studies, Ezhakkad	1
BoardRoom in Tathva18 Techfest	First Prize in a Management Team	NIT-Calicut	4
"Debugger" - Debugging event at Dyusha	2nd Prize	NSS Engineering College, Palakkad	2
" Explorer " as a part of Dyuksha	Third Prize	NSS Engineering College, Palakkad	2
Explorer surfing	3rd prize	Wikipedia links	1
Electro Hackathon at Vyvidh'19	1st prize	Vidya Academy of Science and Technology	1
Volthunter at Vyvidh'19	1st prize	Vidya Academy of Science and Technology	5

[View File](#)

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

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activities	Number of students participated in such activities
Personal Entrepreneurial Competencies	KIED, Kalamassery Campus	Workshop	1	5
Foundation Skills on Entrepreneurship	ICT Academy associated with Kerala Startup Mission	Workshop	1	37
Idea pitching contest	IEDC Cell of Jyothi Engineering College in	Idea pitching contest	5	10

	association with IEEE			
IEDC Summit	Kerala Startup Mission	Entrepreneurs' Meet-up	2	5
Yuva MasterMind 2018	Malayala Manorama in technical partnership with Amal Jyothi College of Engineering	Project Expo	2	11
ON BOARD QUIZ	The Computer Engineering Students Association(CESA) in association with IEDC	QUIZ	4	156
Srishti'19	Tharang'19, JECC in association with IEDC	National Level Project exhibition and competition	4	25
Technical Conclave 2019	MSME District Industries Center, Thrissur	Technical Conclave	2	4
Ethical Hacking	The Computer Engineering Students Association(CESA) in association with CSI	Workshop	10	120
Swatch Bharath Abhiyan program	NSS	Swatch Bharat Survey on 21/07/2018	100	1000
<a href="#">View File</a>				

### 3.5 – Collaborations

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

Nature of activity	Participant	Source of financial support	Duration
Project	Amal Prem, Jain Johnson, Delma Davis, Harikrishnan	NNOVATE KSCSTE 2019	90
Project	Mohammad Saajid, Mohammed Asiq Maqbool, Viju Valsan, Kokul Jose, Raveena P.	NNOVATE KSCSTE 2019	90
Project	Jisna Joby, Catherine lenette, Agna, Divya Shibhu	Yuva Mastermind 2019	90

Project	Asna, Ajaz, Emmanuel, Anirudh, Catherine, Bini, Jima	Yuva Mastermind 2019	90
<a href="#">View File</a>			

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

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Internship	Machine Learning with Python	Abacies Logiciels Private Limited , Bangalore	09/07/2019	12/07/2019	Aaand AM, Harikrishnan , Anirudh Rajan
<a href="#">View File</a>					

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

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
Cube Associates,TC 11/399(1),Navodaya Gardens, Nalanchira P O, Trivandrum	12/06/2018	Invited talk, Industrial visit, Internship etc	1
TRIAXIA Infotech Private Limited	21/02/2019	1.To promote and Enhance academic interest between JECC-CSE TRIAXIA INFOTECH PVT LTD. 2. To provide advice for implementation of quality education at JECC-CSE 3. To promote research/continuing education activities	10
MESSENGERIFY LABS PVT LTD, NASSCOM	18/02/2019	1.To promote and Enhance academic interest between JECC-CSE MESSENGERIFY LABS PVT LTD . 2. To provide advice for implementation of quality education	10

		at JECC-CSE 3. To promote research/continuing education activities between institutions	
CEDICOM ELECTRONICS	13/01/2018	Industrial visits and Training	44
ELECTRO COMP SYSTEMS	05/11/2018	Industrial visits	34
HYKON	12/01/2019	Industrial visits	23
Keraleeya Ayurveda Samajam Hospital, Shoranur	30/07/2018	Invited talks, Research activity on "Efficiency improvement and automation of production system."	54
<a href="#">View File</a>			

## CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 – Physical Facilities

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

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
926	781.36

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Campus Area	Existing
Class rooms	Existing
Laboratories	Existing
Seminar Halls	Existing
Classrooms with LCD facilities	Existing
Classrooms with Wi-Fi OR LAN	Existing
Seminar halls with ICT facilities	Existing
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added
Value of the equipment purchased during the year (rs. in lakhs)	Newly Added
No file uploaded.	

### 4.2 – Library as a Learning Resource

4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or patially)	Version	Year of automation
Campus Book	Fully	1	2011

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
	Text Books	27734	8086634	429	201916	28163
Reference Books	8744	4499469	228	114751	8972	4614220
e-Books	1091	1062017	Nil	Nil	1091	1062017
Journals	86	203227	1	3000	87	206227
e-Journals	253	1397048	Nil	Nil	253	1397048
<a href="#">View File</a>						

4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
Nil	Nil	Nil	31/05/2019
No file uploaded.			

#### 4.3 – IT Infrastructure

##### 4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/GBPS)	Others
Existing	802	17	2	1	1	1	0	48	0
Added	8	0	0	0	0	0	0	0	0
Total	810	17	2	1	1	1	0	48	0

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

48 MBPS/ GBPS
---------------

##### 4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
Nil	<a href="#">Nil</a>

#### 4.4 – Maintenance of Campus Infrastructure

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

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
619	474.92	307	306.71

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

1. Central Library with a rich collection of books and journals. There is well oiled mechanism aimed at efficient and equitable utilization of the resources. The processes are partly automated using inhouse developed library management software integrated with the management information system of the institute. 2. The institute has two well equipped halls Insight Hall and Decennial Hall for conducting technical sessions. There is a welldefined procedure for availing these halls for conducting programmes like FDPs, invited lectures and other erudite programmes. There is a project office which is entrusted with the custody of these facilities and the approval of the office is procured through the management information system, campus book, which is wholly inhouse developed. 3. The institute has a well oiled mechanism for addressing any issue raised in connection with any of the infrastructural facilities provided. In case of failure of any any installation electrical and otherwise, the same can be communicated to the project office which is in charge of these facilities through campusbook which is the MIS software of the college. 4. All the essential stationery items that are likely to needed by the students are made available through a store which runs through the college hours. 5. Every department submits its requirements with regard to the upgradation of the department infrastructure. The college annual budget is preparation with due consideration of the department level requests. 6. The college provides sufficiently large auditorium which can accommodate the all the students and the faculty together. 7. Each department has a separate seminar hall sufficient for the conduct of presentations as part of the curriculum. Larger programs are typically conducted in the Insight and Decennial halls.

## CRITERION V – STUDENT SUPPORT AND PROGRESSION

### 5.1 – Student Support

#### 5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	Management Scholarship for KEAM Rank, Management Scholarship, Scholarship Asthra Jyothi 2016, Scholarship based on 2 mark( 90 to 94 )for 2018 Batch, Scholarship based on 2 mark (95 and above) for 2018 batch, KEAM Scholarship	524	14287054
Financial Support from Other Sources			
a) National	E-grants by State govt.	107	8698050
b)International	Nil	Nil	0
<a href="#">View File</a>			

#### 5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial



coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
Soft skill development	02/08/2018	160	Internal
Workshop on Personal Entrepreneurial Competencies	03/07/2018	5	KIED, Kalamassery Campus
Foundation skills on Entrepreneurship	13/09/2018	17	ICT Academy associated with Kerala Startup Mission
Power Bank Manufacturing	18/08/2018	30	IEEE-IAS
Workshop on PCB Design	03/05/2019	20	IEEE-IAS
IoT workshop	20/02/2019	7	ICT Academy Learning Centre
Remedial coaching	20/11/2018	215	Staff handling Subjects
Mentoring	01/08/2018	1216	Class Tutors
Idea Pitching Contest	29/09/2018	10	IEDC Cell of Jyothi Engineering College in association with IEEE
DESIGN THINKING WORKSHOP	13/02/2019	4	ICT Academy of Kerala in association with KSUM

[View File](#)

5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passed in the comp. exam	Number of students placed
2018	Infosys Specific training program	93	Nil	Nil	22
2018	TCS specific training program	106	Nil	Nil	8

[View File](#)

5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
1	1	1

## 5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Name of organizations visited	Number of students participated	Number of students placed	Name of organizations visited	Number of students participated	Number of students placed
AMAZON EnglishEdge EXPERION TECHNOLOGIES FACE (Focus Academy for Career Enhancement) Federal bank Fingent Global Solutions IBS Software Services POORNAM INFOVISION Pumex Infotech Quest Global Shriram Transport finance Speridian Technologies SupportSa	1409	68	COGNIZANT HCL TECHNOLOGIES Hexaware technologies Infosys TCS UST Global V VDN Technologies Wipro Infosys Joy Ambooken Associates M apranathukaran Construct ions Staad point Vadukoot Consultants	167	72
<a href="#">View File</a>					

5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of programme admitted to
2019	11	B.Tech	CE	APJ Abdul Kalam Technological University, NICMAR School Of Construction Management,	M.Tech, MBA
2019	1	B.Tech	CSE	Carleton University	Master of Computer Science

2019	1	B.Tech	ME	Centre of Environmental Planning and Technology	Mater in Design in Building Product System
2019	1	B.Tech	ME	Sapienza University of Rome	Mater in Energy Engineering
2019	2	B.Tech	ME	Toronto, Canada	MS
2019	1	B.Tech	ME	SCMS School of Technology and Management	MBA
2019	2	B.Tech	ME	University of Duisburg, Essen	Masters in Technical Logistics
2019	2	B.Tech	ME	Conestoga College, Kitchner, Canada	Applied Mechanical Design
2019	2	B.Tech	ME	Fanshawe College, Canada	Practical Elements of Mechanical Engineering
2019	1	B.Tech	ME	University of Wollongong, Australia	Masters in Mechanical Engineering

[View File](#)

5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
GATE	5
Any Other	25

[View File](#)

5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
Tharang Tech Fest, Nrithya Dance Competition	State	200
College Art Fest	College Level	250
Annual Sports Meet	College Level	150
House wise games	College Level	250

[View File](#)

### 5.3 – Student Participation and Activities

5.3.1 – Number of awards/medals for outstanding performance in sports/cultural activities at national/international

level (award for a team event should be counted as one)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2019	KTU University Athletics 4X100 relay Men Gold medal	National	1	Nill	JEC17ME003 JEC16EE023 JEC16EE003 JEC16ME090	ABHILASH THAMBI EDWIN JOSEPH C AKHIL JAMES K NELSON PAUL
<a href="#">View File</a>						

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

College has an active student association consisting of student members. The student members of the association is elected through democratic process of election in which student cast their vote to candidates of their choice to select the class representative. From the class representatives the student union is formed. The constitution of the student association comprises Chairmen , Vice Chairperson general secretary , Joint Secretary, Magazine editor , Arts secretary two UUCs and year wise representatives . The association is monitored by senior faculty members who are responsible for the smooth conduct of the association meetings and events. The student association plays a dominant role in many activities related to fine arts, sports and other cocurricular activities of the department and the students. Various cocurricular activities organized by the association include Special Lectures by experts, Seminars, Workshops, Symposium, National Level Conference and Intercollegiate meet to develop the personality and skills of the student's ability. Eminent speakers and industrialist deliver speeches on topics relevant to current educational scenario. Student members of the associations also observe important days like National Festivals, Birth/Death Anniversaries of important leaders, International Women's Day, International Yoga Day, Sports Day, Nonviolence Day, Teachers Day, Farewell Party, World AIDS Day, They also organizes cultural festivals like Intercollegiate Meet 'Tharang', College Day,, Onam, Christmas Celebration, etc.. Students from each department participate in class committee meeting and faculty feedback will be given.

#### 5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

No

5.4.2 – No. of enrolled Alumni:

4873

5.4.3 – Alumni contribution during the year (in Rupees) :

295000

5.4.4 – Meetings/activities organized by Alumni Association :

- General Body meeting
- Executive member meeting
- Flood relief Activity :

### CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

## 6.1 – Institutional Vision and Leadership

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

Decentralization The institution has a mechanism of providing operational autonomy to various functionaries in order to ensure a decentralized governance system. 1. Principal Level Principal is the member secretary of the governing body and chairperson of the IQAC. The Principal in consultation with the Teachers' Council nominates different committees for planning and implementation of different academic, student administration and related policies. All academic and operational policies are based on the unanimous decision of the governing body, the IQAC and the teachers council. 2. Faculty level Faculty members are given representation in various committees/cells nominated by the Teachers council, in the Governing body, in the IQAC and other committees. Every year, the composition of different committees is changed to ensure a uniform exposure of duties for academic and professional development of faculty members. Following are the different subcommittees which have been nominated by Teachers' Council (201819): • Admission Subcommittee • Internal tabulation subcommittee • Routine subcommittee • Seminar Proposal subcommittee • Library subcommittee • Student Union Election subCommittee • Student disciplinary subcommittee • Subcommittee for games and sports • Canteen subcommittee • Journal and publication Sub committee • Cultural subcommittee Following committees are constituted accordance to government guidelines: • Internal Complaints Committee • Counselling and Career Guidance and Placement Unit • Grievance Redressal Cell • Website committee • Tax Related Sub Committee • Anti Ragging Committee • Press Media Sub Committee. 3. Student level Students are empowered to play important role in different activities. Functioning of different secretaries of students union (listed below) further reinforces decentralization. • cultural secretary • student welfare and social service secretary • canteen secretary • computer in charge Participative management The institution promotes the culture of participative management at the strategic level, functional level and operational level. • Strategic level: The Principal, governing body, Teachers council and the IQAC are involved in defining policies procedures, framing guidelines and rules regulations pertaining to admission, examination, discipline, grievance, support services, finance etc • Functional level: Faculty members share knowledge among themselves, students and staff members while working for a committee. Principal and faculty members are involved in joint research and have published papers • Operational level: The Principal interacts with government and external agencies faculty members maintain interactions with the concerned departments of affiliating university. Students and office staff join hands with the Principal and faculty for the execution of different academic, administrative, extension related, co and extracurricular activities.

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

Yes

## 6.2 – Strategy Development and Deployment

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

Strategy Type	Details
Curriculum Development	The curriculum is set by APJ Abdul Kalam Technological University. Representatives from each department are called by the university where they can give their suggestions and feedback before the syllabus is finalized. Gaps

in the syllabus of various subjects are communicated to the university for consideration.

#### Teaching and Learning

Various measures have been taken to improve the quality of teaching and learning process in all the departments of the college. Departmental meetings are arranged periodically to review the progress of the academic plan. Class committee and Course Committee meetings are conducted twice in a semester to review the effectiveness of the teaching learning process. Verbal feedback is collected from the students during this meeting and the same is discussed with concerned faculty members and necessary corrective action is initiated. Also, an online feedback process is developed in the college which is designed in strict accordance with the teaching learning process. The feedback analysis obtained is given to HOD for analysis, and the feedback is communicated to each faculty member concerned. Also, feedback on institutional infrastructure and extracurricular activities is conducted in every semester. To ensure the deep understanding of the subjects, tutorials are conducted for the theory subjects as prescribed by university norms. Tutorial hours are earmarked in the subject time table and the tutorial methodology is well planned before the beginning of the course. Students are given different exercises in order to brush up the fundamentals more precise with the help of faculty in the prescribed hour. A well defined mentoring system exists in the departments. Mentoring is done by tutor after each sessional exam. Each tutor is allotted around thirty students. Academically weak students are counselled by their mentor. They are counselled to improve their academic performance by modifying their study habits after taking in to consideration their performance in the tests. Remedial classes are arranged for the students those who need to be monitored efficiently. The academically bright students are motivated to do exceptionally well in the university exams. To make the students ready for the university examination, previous year question papers and Model university questions paper along with

answer key is made available through learning material repository section in Campus Book. Students are constantly encouraged to do NPTEL and MOOC courses to supplement their academic learning. Also, there is a large collection of NPTEL archived in the library. Students are encouraged to update their skills by attending workshops, internships, industrial visits and seminars. Regular soft skills and aptitude training is done by experts. Each student of the institution is an active member of any one of the professional bodies such as IEEE, IET, CSI, ISTE. To ensure the Teaching learning process, an internal academic audit cell has been constituted as per the requirement of the KTU. It regularly conducts internal audits twice in a semester to monitor the Teaching and Learning Process. An external audit is conducted twice in a semester by an auditor authorized by KTU

**Examination and Evaluation**

In each semester two internal tests and a model exam have been conducted. Model exams are conducted to make the students ready to face the end semester exams. Also, continuous evaluation of students for each subject is done by respective faculty through assignments, seminars, etc. A separate Examination cell is constituted for the smooth conduct of the internal exams. End semester examination has been conducted by the respected universities (Calicut and KTU) during the two time periods one in April to May and the other in November to December.

**Research and Development**

Institution gives great importance to activities related to research and development. A R D cell is constituted with research oriented faculty members. Research weeks are conducted to give orientation to faculty members regarding the various funding agencies and how to apply for funded projects. Faculty members are motivated to register for PhD and the management gives full support to the PhD doing faculty members in every possible way. Faculty and students are doing funded projects under KSCSTE and KTU for the benefit of the society Institution has developed into a research centre under KTU with faculty providing guidance for PhD students. There has been a increase



in the number of PhD holders in the institution. The management encourages publications in reputed journals and international conference. There has been a tremendous increase in the number of staff and students who attended and presented papers in international conference

Library, ICT and Physical Infrastructure / Instrumentation

Institution has an automated central library with text and reference books Journals / Magazines eBooks eJournal/Magazines and DVDs. A research corner is established in the central library to exhibit the research related articles of the faculty and students of the college. It includes journal and conference publications and the thesis and dissertation works of the staff and students. Also, Department based library facilities are also functioning for the students. Library facilities can be access through Campus Book. The entire campus is WiFi enabled with a speed of 64Mbps. All classrooms are equipped with LCD Projectors, CCTV and a public address system. Adequate, well equipped laboratories to meet the curriculum requirements are available. A sophisticated FabLab has been set up in association with Kerala Startup mission and MIT. There is facility for conducting webinars which can be made use of by faculty and students.

Human Resource Management

Human Resource is the heart of an organisation and forms the lifeline and determines its destiny. The realisation of the mission of the organisation rests on the commitment of the personnel engaged for various assignments and tasks. Motivated and well trained human resource is necessary to fulfil the goals and objectives of the organisation. The college is committed to set high standards of personnel management with due place for efficiency and transparency. The management of the team of people who are called upon to assist in the implementation of the programmes and projects demands a comprehensive Human Resource Management Manual covering policies and procedures that will provide a healthy atmosphere for work.

Industry Interaction / Collaboration

Students are undergoing internships in reputed industries such as FCRI, ITI, CDAC, KELTRON, BSNL,TBI etc. to



gain skills to improve their employability. Students undergo final year projects at ISRO,BSNL, KSEB, KELTRON etc. Institution has signed MoU with many industries like Hykon which reduces the gap between academia and industry.

Admission of Students

For UG programmes, Admission are strictly on the basis of merit. Candidates must be citizens of India/persons of Indian origin (PIO)/Overseas citizen of India (OCI). Candidates should have completed 17 years of age on 31st December 2018. Applicants should Pass Higher Secondary Examination of the Board of Higher Secondary Education of Kerala or an examination recognized equivalent thereto with at least 50 marks in Mathematics separately and 50 marks in Mathematics, Physics and Chemistry/equivalent subjects put together or equivalent grade. Only those Applicants who qualify in Kerala Engineering Entrance Examination 2018 (KEAM 2018) conducted by the Commissioner for Entrance Examinations, Govt. of Kerala are eligible (Candidates should have scored minimum of 10 marks each in Paper I and Paper II) For PG programmes, Admission is strictly on the basis of merit. The candidates should be an Indian National. The candidates should have studied the Graduate course in an institution approved by the AICTE / Deemed to be Universities in India approved by the UGC. Candidates should have a minimum of 60 aggregate marks in the Engineering Degree examination. For SC/ST candidates a pass in the Engineering Degree course is sufficient. For SEBC (OBC) students, a minimum of 54 aggregate marks in the Engineering Degree examination is mandatory. Candidates, who have passed AMIE / AMIETE Examinations and satisfying the following conditions, are eligible for admission. They must have valid GATE score. A minimum of 55 marks for section B in AMIE/AMIETE examination. First priority for admission shall be to those with valid GATE score. In case seats remain vacant due to lack of candidates with valid GATE score, candidates from Kerala State without valid GATE Score will be considered against such vacancies. If

seats are still remaining vacant, candidates from other states will be considered for admission.

### 6.2.2 – Implementation of e-governance in areas of operations:

E-governance area	Details
Planning and Development	College has proposed complete office automation. Office automation will include students' database, faculty and staff database, feedback system etc
Administration	Notices and circulars are uploaded in the college website and communicated to different departments through email from the office of the Principal. Each and every IQAC notice is circulated by the coordinator himself through email.
Finance and Accounts	Receipt of admission fees is completely online. Salary of faculty members and staff is transferred directly to the bank account
Student Admission and Support	Applications are submitted for admission to different courses through the online admission portal • Merit list is prepared and uploaded by fully computerized system • Online counselling is scheduled based on the merit list of candidates. Email ids and contact numbers of all members of Anti Ragging Committee, Anti Ragging Squad and Internal Complaints Committee have been uploaded to the college website and students can communicate to the members through email.
Examination	Evaluation of answer scripts is conducted in accordance with the university policies. The college is a approved valuation centre of KTU. Faculty members of this college perform their evaluation duties as examiner, chief examiner, as and when appointed by the university. They also serve as observers as ordered by the University. The faculty also serve as question setters for both UG and PG courses.

### 6.3 – Faculty Empowerment Strategies

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

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2018	Fr. David Nettikkadan	ICWSNUCA-2018	NIL	10000

2019	Jenson Jose	IEEE-ICECCT-2019	NIL	3000
2019	Jithin K, Jose	NIL	IEEE	5000
<a href="#">View File</a>				

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

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2018	Pursuing Excellence in Engineering Education	NIL	09/07/2018	11/07/2018	60	Nil
2019	Innovative approach for effective implementation of student project and its documentation	NIL	17/01/2019	21/01/2019	16	Nil
2018	Introduction to Research through Research Methodology Mathematics	NIL	05/07/2018	07/07/2018	15	Nil
<a href="#">View File</a>						

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

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
New Housing Literacy for Rebuilding Kerala, organized by the State Housing Board District	3	21/01/2019	21/01/2019	1

Nirmithi Kendra, Thrissur at Kerala Sahithya Academy Hall, Thrissur				
Real time applications of intelligent transportation systems, sponsored by Transportation Engineering Research Centre, Organized by Department of Civil Engineering, College of Engineering Trivandrum	1	12/12/2018	14/12/2018	3
Multivariate data analysis. Government College of Engineering, Thrissur	1	17/12/2018	21/12/2018	5
Theory and Practice of Data Science	30	24/06/2019	28/06/2019	5
Recent Trends In Power Electronics And Control, Govt. Engineering College Thrissur	5	10/12/2018	14/12/2018	5
FDP on "Engineering Simulation with ANSYS"	2	02/07/2018	07/07/2018	6
FDP on creating Road map for Identification Implementation of Interdiscipl inary Projects, Govt. Engineering College Thrissur	4	25/06/2018	29/06/2018	5
STTP on	3	28/06/2018	04/07/2018	7

Discrete Computational Structures				
FDP on Emerging Trends in Big Data Analytics and Hadoop	4	14/01/2019	19/01/2019	6
One week STTP on Technology enhanced learning environment, Cochin University of Science Technology	1	07/01/2019	11/01/2019	5
<a href="#">View File</a>				

6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
13	13	1	1

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
Staff Club, Medical Leave, Gratuity	ESI, Staff Club, Medical Leave, Provident Fund	Medical Insurance

**6.4 – Financial Management and Resource Mobilization**

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

Financial audit is conducted internally and externally every year. All the labs are checked and verified by a panel of expert members and report is submitted to the Principal.

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

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
Department of Science and Technology, India	2496000	Industry sponsored Project
No file uploaded.		

6.4.3 – Total corpus fund generated

2496000
---------

**6.5 – Internal Quality Assurance System**

6.5.1 – Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority

Academic	Yes	KTU	Yes	IQAC
Administrative	Yes	Abraham Jose	No	Internal auditors elected by Board of Trustees

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

PTA plays important role in the well being of the institution. Regular meeting with PTA Executive is conducted to discuss and convey the decisions made by the college council. Also, suggestions and feedbacks from PTA are recorded and taken in to consideration. They award scholarships and financial support for the students who have good academic background. They provide financial assistance for industrial visits for financially weak students. They give financial support to conduct techfest in the institution

6.5.3 – Development programmes for support staff (at least three)

Trainings and invited talks are organised by the college for personal improvement which enhances their expertise. LabInCharges give talks to make laboratory staff theoretically sound.

6.5.4 – Post Accreditation initiative(s) (mention at least three)

Constituted IQAC with NAAC Guidelines The College conducts Faculty Development Program every year to promote and enhance the teaching -learning process more effective. OBE Sensitization Programs

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b) Participation in NIRF	Yes
c) ISO certification	No
d) NBA or any other quality audit	Yes

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2018	Prepare the AQAR for the year 2018-19	02/07/2018	02/07/2018	28/06/2019	8
2018	Internal Examination quality assurance steps by IQAC	02/07/2018	02/07/2018	28/06/2019	113
2018	Conduct Internal academic audit	05/11/2018	05/11/2018	07/11/2018	113
2019	Conduct Internal academic audit	10/04/2019	10/04/2019	12/04/2019	113

2018	Faculty sensitization to OBE by ascertaining that outcomes and Bloom's taxonomy are duly taken into cognizance in their student evaluation process	02/07/2018	02/07/2018	28/06/2019	113
------	--	------------	------------	------------	-----

[View File](#)

## CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

### 7.1 – Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
SURVEY AMONG GIRL STUDENTS	20/12/2018	20/12/2018	20	Nil
SELF DEFENCE WORKSHOP	09/02/2019	09/02/2019	35	Nil
WOMENS DAY CELEBRATION	22/03/2019	22/03/2019	100	Nil

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources
<ul style="list-style-type: none"> <li>• Organisation of World habitat day celebrations was done and a technical talk on "Affordable Homes" was arranged.</li> <li>• Centre for Water Research and Education (CWRE) is established for remediation of water related issues which includes water quality, rain water harvesting etc. The centre maintains a Govt. approved commercial laboratory which undertakes testing of water quality. Solutions for water quality issues are disseminated through oral interactions with the individual customer and also through a website maintained by the centre.</li> <li>• In order to disseminate the water quality issues a book in Malayalam namely, "Jalavum Jeevithavum (Water and Life)" is published and is being distributed among relevant people and organisation</li> <li>• We encourage taking up environmentally related B.Tech student projects</li> <li>• As part of Environment Day celebrations, saplings of different trees were planted within the campus.</li> <li>• We were part of First Phase activities of Haritha Kerala Mission, Panjal Grama Pachayath, which intends to trigger the agricultural development by efficient water resources planning, organic farming methods and waste management.</li> <li>• Utilising a Solar power plant of 67.30 kWp. The average production and consumption is 6000 units which is about 25 of the power requirement of the college.</li> </ul>

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries

Physical facilities	Yes	Nil
Provision for lift	Yes	Nil
Ramp/Rails	Yes	Nil
Braille Software/facilities	No	Nil
Rest Rooms	Yes	Nil
Scribes for examination	No	Nil
Special skill development for differently abled students	No	Nil

#### 7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2018	1	1	27/07/2018	1	Swatch Bharath Survey	House hold cleanliness and waste management	1000
2018	1	1	24/07/2018	1	Medical camp	Medical awareness	60
2018	1	1	09/08/2018	1	Cleaning awareness rally	Cleaning awareness	75
2018	1	1	24/08/2018	1	Training class for flood relief survey	Flood relief	570
2018	1	1	28/08/2018	5	Rapid visual inspection	Flood relief activity	500
2018	1	1	22/09/2018	1	Swatch He Seva	Cleanliness @ shornur railway station	90
2018	1	1	02/10/2018	1	Gandhi jayanthi	Cleanliness in vallathol panchayath	90



2019	1	1	17/02/2019	10	Water Survey	Rain water Harvestment	90
2019	1	1	03/01/2019	7	Sanjeev anam at Mullurkkara Gramapanchayath	Cleaning painting etc	98
2019	1	1	24/03/2019	1	Thrissur corporation survey Amrithacity	House Survey	40

No file uploaded.

7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
Handbook	15/07/2019	Describes the vision and mission of the college and each department. Academic roadmaps also described in the college diary. The Rules and regulations of university and college is also given. General information to students such as dress code, discipline conduct and behaviour, attendance and leave regulations, ragging etc are also given.
College Website	01/07/2019	Describes the vision and mission of the college and each department. College website provide informations beyond academics. It includes the details of activities undertaken by women development cell, NATURA Environment club, Blood donation Forum, NSS , Health Club etc.
HR Manual	01/07/2019	HR Manual explains the vision and mission of the college. The core values quality policy and the HR management policy is described. The values that preserve the dignity of the human being the

equal opportunity policy regarding equity Justice, professionalism transparency and accountability and legal compliance are also well explained.

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Swatch Bharath Abhiyan program	21/07/2018	21/07/2018	1000
Flood Relief Survey - Rapid Visual Inspection	28/08/2018	01/10/2018	500
No file uploaded.			

7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

- Solar panel installation Renewable Energy (Solar power plants) with capacity 63.7 kW .
- The college has 80 lakhs litres capacity Rain water Harvesting system (50m x 20m x 8m).
- Digital Jyothi initiated with Communications done through Campus Book which reduces paper.
- The institution is a plastic free campus
- The College has established a an exsitu conservatory garden of medicinal plants. This garden has around 40 species of various important medicinal plants such as Ashokam, Brahmi, Kanikkonna, Chittamruthu, Ungu, Venga, Athi, Iluppa, Thanni, Chandanam, Plassu etc.
- Wide varieties of Bamboo are planted in the campus
- Natura ClubActivities of environmental forum
- Rain water harvesting
- Clean campus initiative

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

1. Mentoring Mentoring is a system of providing guidance by sharing their experience, knowledge skills for improving carrier and futuristic life. For mentoring process each student in class is allotted to faculty. Each student is subjected to mentoring twice in a semester. Students are also referred to special counselling if required. Mentors record book clearly defines the details a particular student. The book consists of all the data regarding academic and personal information.

2. Answer Repository System College introduced the concept of answer repository system where both students and staff can avail solved university question paper. All the faculty will prepare the answers of their concerned subjects of university question paper. Faculty will upload the prepared document to the answer repository file.. The prepared answers uploaded by the faculty will be reviewed by a subject expert committee. Students can avail the same through campus book and can use it as a reference material.

3. Introduction of practice oriented learning using the FABLAB facility College has started a mini fab lab(mini fabrication laboratory ) with support of APJ Abdul Kalam Technological university and Kerala Startup Mission (KSUM) in the college campus. JECC Mini Fab lab is the one of the first 20 mini fab lab in Kerala. Each Mini fab lab contains machineries, tools and consumables cost of 50 lakh Indian rupees. Fab labs provide widespread access to modern means for invention. It provides a small scale workshop offering digital fabrication.. Students are encouraged to do projects using the facilities of the lab.

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

### 7.3 – Institutional Distinctiveness

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

Technical skill enhancement The college is supporting activities for students to improve their ability to carry out task associated with technical roles. The aim is to improve the confidence among the students and make them more valuable candidates as employer. It also helps in improving the technical skills which often better at multitask challenging and complex role. The college encourage students in participating in different technical skill development workshops, competition, technical fest etc that creating a plat form for excelling their skills. INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CELL (IEDC) started on October 2015 helps the students in strengthening their skills. The implementation of IEDC helps the students to enhance interpersonal and leadership skills by organising workshops, invited lectures, project exhibitions etc. The IEDC core committee approves budding ideas submitted from students and recommends them to the Startup centre or tbi@jec based on the maturity phase of the idea. Ideation to Prototype activities are recommended and supported at the Startup Centre, which houses the IoT lab. College has started a mini fab lab(mini fabrication laboratory ) with support of APJ Abdul Kalam Technological university and Kerala Startup Mission(KSUM) in the college campus. ECC Mini Fab lab is the one of the first 20 mini fab lab in kerala. Each Mini fab lab contains machineries, tools and consumables cost of 50 lakh Indian rupees. Students are encouraged to do projects using the facilities of the lab. Introduction of add on courses also helps the students to strengthen their skills.

Provide the weblink of the institution

<https://www.jecc.ac.in>

### 8.Future Plans of Actions for Next Academic Year

Student performance 1. Encourage students to actively engage with the industrial organizations during their internship. 2. Provide guidance and training for the examinations such as CAT,GATE, GMAT, TOEFL and GRE. 3. Provide business training to equip students interested in becoming entrepreneurs. 4. Improve the average CGPA scored by the passed out students to more than 7. 5. Prepare a learning material repository as a reference material for students. 6. Encourage students to take part in technical programmes and competitions Faculty Development 1. Encourage all faculty members to enroll for Ph.D programmes 2. Conduct Faculty Development Programs for enhancing research interest. 3. Every faculty should have done at least one MOOC course prior to handling a subject/course. 4. Faculty should be encouraged to go on industry sabbaticals 5. Encourage faculty members to enhance publications quantitatively and qualitatively by framing a research policy in coordination with the research cell 6. Encourage faculty to try for funded projects. 7. Establishment of MoUs with other research and academic institutes 8. Awareness initiatives on Patent and their relevance in the present academic world. 9. Encourage faculty to try for industrial projects OBE and accreditation 1. Audit of the course material generated to enhance the quality of delivery and sensitize the faculty to the requirements of OBE. 2. Established a procedure for the conduct of internal evaluation of students in confirmity with the principles of OBE. 3. NBA reaccreditation activities monitoring 4. Increase the awareness among the faculty about the need to take part in the curriculum revision process of the university. Research Development 1. Each department should form research groups and have to produce one paper out of their activities. 2. Each department should have ongoing funded RD of value more than 5 lakhs. 3. Every department should engage in industrial consultancy work worth

Rs.1 lakh. 4. Every faculty member should publish at least one research article every year in an SCI/SCOPUS indexed journal. 5. All the faculty members participate / present papers in international conferences / workshops / FDPs organized by leading institutions in India and abroad. 6. Each department should organize at least one conference and one FDP every year. 7. Each faculty has to attend two external and one internal faculty training programs of at the least one week in last three academic years.