Yearly Status Report - 2019-2020

Part A	
Data of the Institution	
1. Name of the Institution	**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.	**9895837646**
Registered Email	**info@jecc.ac.in**
Alternate Email	**iqac@jecc.ac.in**
Address	**JYOTHI HILLS , VETTIKKATTIRI (PO)**
City/Town	**CHERUTHURUTHY,THRISSUR**
State/UT	**Kerala**
Pincode	**679531**

2. Institutional Status

Affiliated / Constituent	**Affiliated**
Type of Institution	**Co-education**
Location	**Rural**
Financial Status	**Self financed**
Name of the IQAC co-ordinator/Director	**Dr. Vinith R**
Phone no/Alternate Phone no.	**048844259000**
Mobile no.	**9895837646**
Registered Email	**info@jecc.ac.in**
Alternate Email	**iqac@jecc.ac.in**

3. Website Address

Web-link of the AQAR: (Previous Academic Year)	http://www.jecc.ac.in/iqac

4. Whether Academic Calendar prepared during the year	**Yes**
if yes,whether it is uploaded in the institutional website: Weblink :	https://jecc.ac.in/iqac/academic_calendar

5. Accrediation Details

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

6. Date of Establishment of IQAC	**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
Regular IQAC meetings	**03-Mar-2020** **3**	**17**
Research promotion through Journal club	**23-Jan-2020** **12**	**121**

activities			
Assisting External Audit	12-Nov-2019 1	121	
Conduct of Internal Audit	04-Nov-2019 3	121	
Internal Examination Quality assurance steps by IQAC	12-Aug-2019 12	121	
Preparation of AQAR for the Academic Year	03-Dec-2019 365	1658	
Faculty feedback and monitoring	16-Dec-2019 4	1658	
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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
JECC/ECE / MR/Dr.Jose P therattil / Mr.Jinesh KJ	Engineering Technology Programme	KSCSTE	2016 913	1272400
JECC/CSE/Ms.Aswathy Wilson	innovation	Kerala Startup Mission	2019 365	10000
JECC/ME/ Dr.Biju C V & Students	Engineering and Technology /Student project	KSCSTE	2020 365	9750
ME/ Dr.Biju P L & Students	Student project	CERD	2020 365	49000
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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 :	**3**
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	**Yes**
Upload the minutes of meeting and action taken report	[View File](#)
11. Whether IQAC received funding from any of the funding agency to support its activities	**No**

during the year?

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

The IQAC along with senior academic team periodically review the internal evaluation system to encourage analytical thinking and creativity among students.

Systematic and periodic review of the teaching learning process at the end of every semester by conducting Internal audits.

Inviting and incorporating feedback from students on teaching and learning process.

A learning material repository has been started in the Campus management Software

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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

Plan of Action	Achivements/Outcomes
Development of research culture	Research culture is promoted in the institution through Journal club activities and workshops
Periodic updates of NBA activities	NBA related files are updated after the completion of every semesters
Preparation of AQAR for Academic Year	AQAR is ready for submission
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14. Whether AQAR was placed before statutory body ?	Yes

Name of Statutory Body	Meeting Date
College council	08-Dec-2020

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	No

16. Whether institutional data submitted to AISHE:	Yes

Year of Submission	2012

Date of Submission	24-Oct-2012

17. Does the Institution have Management Information System ?	Yes
If yes, give a brief descripiton and a list of modules currently operational (maximum 500 words)	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 • 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. • 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. • A comprehensive learning material repository is accessible through the Campus Book software. University question papers of previous 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/entreprene urship	Skill Development
NA	NA	Nil	Nil	NA	NA

1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction
Mtech	INDUSTRIAL AUTOMATION AND ROBOTICS	01/08/2019
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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,EC,EEE,ME,MR	01/08/2019

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

	Certificate	Diploma Course
Number of Students	312	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
Invited talk on "Modified Intakes in Deep Reservoir for Water Quality Management	03/09/2019	114
A talk on "Frontier Technologies as an Innovative Tool to Transform Waste to Wealth"	09/10/2019	73
CORRIDOR ANALYSIS IN TRANSPORTATION PLANNING	04/11/2019	25
One day workshop on Latex and Technical Writing	12/11/2019	53
A talk on "Building with Concrete"	12/02/2020	38
A technical talk on 'Significances of Building Services'	19/02/2020	71
A technical talk on "Domestic Pollution: Remedial Measures"	16/02/2020	15
on the job training program for VHSC students	23/09/2019	30

Catch them Young	31/10/2019	30
Google AI Explore Machine Learning -Beginners level	28/08/2019	44
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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	CIVIL	20
BTech	COMPUTER SCIENCE	67
BTech	ELECTRICAL & ELECTRONICS	28
BTech	ELECTRONICS & COMMUNICATION	100
BTech	MECHANICAL	64
BTech	MECHATRONICS	31
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1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	No
Employers	No
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

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: Guidelines of IQAC and submission of AQAR for Affiliated/Constituent Colleges Page 32 ? 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 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
Mtech	CSE	18	19	4
Mtech	CE-Transportation Engineering	18	27	15
BTech	MR	60	91	43
BTech	ME	126	180	65
BTech	EEE	60	72	18
BTech	ECE	60	83	27
BTech	CS	126	300	103
BTech	CE	63	74	28
Mtech	ME-Industrial Automation and Robotics	18	20	4
Mtech	ECE-Communication Engineering and Signal Processing	18	19	Nill
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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
2019	284	23	77	1	43

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	Numberof smart classrooms	E-resources and techniques used
121	121	5	36	36	5
View File of ICT Tools and resources					
View File of E-resources and techniques used					

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 the 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 the mentoring purpose.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
1538	121	1:13

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
121	121	Nill	Nill	28

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	Funding for the project LYZA for Women from IdeaFest19,Kerala Startup mission
2020	Aswathy Wilson	Assistant Professor	2nd Runner Up of Reboot Kerala Hackathon-2020
2020	Anil Antony	Assistant Professor	Winner of Reboot Kerala Hackathon 2020
2020	Bineesh.M	Assistant Professor	2nd Runner Up of Reboot Kerala Hackathon-2020
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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	PG	S1/S3	31/12/2019	31/01/2019
BTech	UG	S1/S3/S5/S7	31/12/2019	31/01/2020
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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. The college-level Academic calendar contains common event schedules. Each department prepares department level calendars that 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)

www.jecc.ac.in

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	64	63	98.43
UG	BTech	CSE	118	116	98.30
UG	BTech	EC	91	90	98.90
UG	BTech	EEE	58	52	89.65
UG	BTech	ME	121	119	98.34
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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://jecc.ac.in/iqac#tab_students_satisfactory_survey

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
Total	2645	NA	2669750	26000
Any Other (Specify)	365	Syro Malabar Trichur Archeparchy	95000	0

Students Research Projects (Other than compulsory by the University)	365	Higher Education Kerala	20000	20000
Industry sponsored Projects	90	Malayala Manorama	6000	6000
Minor Projects	365	KSCSTE	9750	0
Minor Projects	365	KTU	49000	0
Major Projects	1095	DST	2490000	0
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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
Webinar on Intellectual Property Rights in Research- Knowing the basics	ME	09/09/2019

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
Grace Hopper Celebration of conference	Archana Venugopal	Women in Computing India (GHCI)	05/11/2019	Student Scholarship
"Idea Pitching Contest"	Mohammed Ashique Maqbool	Jyothi Engineering College	09/09/2019	Funding
"Idea Pitching Contest"	Harikrishan K R	Jyothi Engineering College	09/09/2019	Funding
Machine Learning facilitator	Sreerag	Google	14/05/2019	Innovation
TAKSHAK' 19	Anand Murali	MACE, Kothamangalam	08/10/2019	Prize in Best Engineer CLUE
TATVA'19	Irfana	NIT Calicut	15/10/2019	second prize in paper presentation
Reboot Kerala 2020	Harikrishnan T. and Team	Higher education Deparment of Kerala	18/12/2019	2nd Runner Up of Reboot Kerala, Innovation
Reboot Kerala 2020	Sreerag and Team	Higher education	18/12/2019	First Prize, Innovation

Reboot Kerala 2020	Ajmal Bsheer and Team	Deparment of Kerala Higher education Deparment of Kerala	18/12/2019	2nd Runner Up of Reboot Kerala, Innovation

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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
TBI	TBI@jecc	Jyothi Engineering College	Jobified	Human Resourse	04/08/2019
TBI	TBI@jecc	Jyothi Engineering College	Lyza for Women	Women Security	10/07/2019

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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
00	Nill

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	Civil Engineering	14	0
International	Computer Science and Engineering	11	0
International	Electronics and Communication Engineering	9	2.6
International	Electrical and Electronics Engineering	6	3.74
International	Mechanical Engineering	16	3.36
International	Mechatronics	1	0

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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
Mechanical Engineering	4

Electrical and Electronics Engineering	6
Electronics and Communication Engineering	6
Civil Engineering	2

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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
Spectral feature and optimization-based actor-critic neural network for arrhythmia classification using ECG signal	Anoop Vylala	Journal Of Experimental Theoretical Artificial Intelligence	2019	1	Jyothi Engineering College	1
Medical Image Enhancement by a Bilateral Filter Using Optimization Technique	Anoop Vylala	Journal of Medical Systems-Springer	2019	5	Jyothi Engineering College	5
A Review of Blue Light Emitting Diodes for Future Solid State Lighting and Visible Light Communication Applications	Prajoon P	Superlattices and Microstructures	2019	3	Jyothi Engineering College	3
Improved RF and DC performance in AlGaN/GaN	Prajoon P	Int. J. Electron. Commun. (AEÜ)	2019	10	Jyothi Engineering College	10

HEMT by P-type doping in GaN buffer for millimetre-wave applications						
Hybrid control of a multi-area multi-machine power system with FACTS devices using nonlinear modeling	Dr. JOSE P THERATTIL	IET Generation, Transmission Distribution	2020	0	Jyothi Engineering College	Nill
Segmentation by Fractional Order Darwinian Particle Swarm Optimization based Multilevel Thresholding and Improved Lossless Prediction based Compression Algorithm for Medical Images	Jarin T	IEEE ACCESS	2019	29	Jyothi Engineering College	29
Neural Proliferation using Brain stimulation Methods Intended for Pediatric Neuropsychiatric Population: A Hypothesis and Theoretical Investigation	Jarin T	Test Engineering and Management	2019	0	Jyothi Engineering College	Nill

Title	Author	Journal	Year		College	
Experimental Investigation on Performance, Combustion and Emission Analysis of a Direct Injection Diesel Engine fuelled with Rapeseed Oil Biodiesel	Deepanraj B	Fuel	2019	45	Jyothi Engineering College	45
Investigation on Novel bulk Size Single Crystal of Glycine with metal Ions Grown by solution growth method for Photonic Applications	Deepanraj B	Materials Letters	2019	3	Jyothi Engineering College	3
Growth and investigation of novel nonlinear optical single crystal of urea potassium dichromate by solution growth technique for photonic application	Deepanraj B	Journal of Optics	2019	2	Jyothi Engineering College	2
			[View File](#)			

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
Medical Image Enhancement by a Bilateral Filter Using Optimization Technique	Anoop V	Journal of Medical Systems- Springer	2019	5	5	JECC
Spectral feature and optimization-based actor-critic neural network for arrhythmia classification using ECG signal	Anoop V	Journal Of Experimental Theoretical Artificial Intelligence	2019	5	1	JECC
Production, optimization and engine characteristics of beef tallow biodiesel rendered from leather fleshing and slaughter house wastes	Deepanraj B	Biomass Conversion and Biorefinery	2020	15	5	JECC
An experimental analysis and optimization of heat treatment parameters of Al6061 alloy for improved mechanical properties	Deepanraj B	International Journal of Mechanical and Production Engineering Research and Development	2019	15	1	JECC

Growth and investigation of novel nonlinear optical single crystal of urea potassium dichromate by solution growth technique for photonic application	Deepanraj B	Journal of Optics	2019	15	4	JECC
Investigation on Novel bulk Size Single Crystal of Glycine with metal Ions Grown by solution growth method for Photonic Applications	Deepanraj B	Materials Letters	2019	15	3	JECC
Experimental Investigation on Performance, Combustion and Emission Analysis of a Direct Injection Diesel Engine fuelled with Rapeseed Oil Biodiesel	Deepanraj B	Fuel	2019	15	61	JECC
A Review of Blue Light Emitting	Prajoon P	Superlattices and Microstructures	2019	10	3	JECC

Diodes for Future Solid State Lighting and Visible Light Communication Applications						
Improved RF and DC performance in AlGaN/GaN HEMT by P-type doping in GaN buffer for millimetre-wave applications	Prajoon P	Int. J. Electron. Commun. (AEÜ)	2019	10	10	JECC
Hybrid control of a multi-area multi-machine power system with FACTS devices using nonlinear modeling	Dr. JOSE P THERATTIL	IET Generation, Transmission Distribution	2020	6	Nill	JECC

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

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	Nill	25	18	1
Presented papers	17	3	Nill	Nill
Resource persons	1	6	3	Nill

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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

Police station visit	NSS UNIT 140 and Cheruthuruthy Police Station	2	49
Gandhi Jayanthi Cleanliness drive Mullurkara	NSS UNIT 140	2	30
Gandhi Jayanthi – Cleanliness drive Shoranur Railway Junction	NSS UNIT 140	2	55
Special Community Development camp	NSS UNIT 140	4	60
Flood relief collection centre	NSS UNIT 140	6	220
Independence Day celebration	NSS UNIT140	3	30
Bus shelter Modification Maintenance	NSS UNIT 591	2	28
Help hand for a needy family	NSS UNIT 591	2	32
Water conservation- Awareness	NSS UNIT 591	2	26
Minimize Plastic waste -Awareness campaign	NSS UNIT 591 in association with Vallathol Nagar Grama Panchayath	2	24
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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
Blood donation camp	Award for successfully conducting blood donation camp	NSS technical cell	100
Overall performance	Nava Velicham Puraskaram	Rani Menon's eye clinic	10
Community development Special camp	Special camp appreciation letter	GHSS Panjal	51
Swachtha Hi Seva Cleanliness campaign	Appreciation certificate	Southern Railway-Shornur Junction	55
Young Innovators Program 19	Selected to State Level	K-DISC, Govt. of Kerala	3
Manorama Yuva Master Mind 2019	Selected to State Level	Malayala Manorama, Amal Jyothi Engg.	4

	College		
Reboot Hackathon 2020	1st position (1) 3rd position(2)	ASAP, Govt. of Kerala	19

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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 activites	Number of students participated in such activites
0	0	0	Nill	Nill

No file uploaded.

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
0	0	0	0

No file uploaded.

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
Final Year Project	Internship	Oushadi Panchakarma Thrissur	02/12/2019	11/05/2020	4
MoU/Final Year Project	Internship	Triaxia Infotech	02/12/2019	11/05/2020	1
Final Year Project	Internship	UST Global	02/12/2019	11/05/2020	1
Final Year Project	Internship	Amrita RD	02/12/2019	11/05/2020	4

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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
Spinner	01/01/2020	to identify and facilitate guest lectures, interactive workshops, conferences, seminars, brain storming sessions,	Nill

		technical discussions with members of the industry at regular interval	
M-LIGHTS, Soft Glow LED, Palakkad	25/01/2020	Industrial Training	Nill
SARK, Hi Tech Cables, Palakkad	25/01/2020	Industrial Training	Nill
Sea Blue Shipyard Ltd, Kochi	25/01/2020	Industrial Training	Nill
Resitech Electricals, Aluva	12/02/2020	Industrial Training	Nill
Hykon Thrissur	06/02/2020	Industrial Training	Nill
Nintriva Technology Solutions	06/02/2020	Industry interaction, Collaboration in Research	Nill
Triaxia Infotech Pvt Ltd	22/01/2020	Industry interaction, Collaboration in Research	75
CEDICOM electronics	01/01/2020	to identify and facilitate guest lectures, interactive workshops, conferences, seminars, brain storming sessions, technical discussions with members of the industry at regular interval	1
Hykon (P)Ltd, Thrissur	01/01/2020	to identify and facilitate guest lectures, interactive workshops, conferences, seminars, brain storming sessions, technical discussions with members of the industry at regular interval	Nill
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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
100	55.91

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
Seminar halls with ICT facilities	Existing
Video Centre	Existing
Value of the equipment purchased during the year (rs. in lakhs)	Existing
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Existing
Classrooms with Wi-Fi OR LAN	Existing
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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	1.0	2011

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	28163	8288550	471	222650	28634	8511200
Reference Books	8972	4614220	360	190828	9332	4805048
e-Books	1091	1062017	Nill	Nill	1091	1062017
Journals	72	206227	10	29700	82	235927
e-Journals	499	1571092	Nill	Nill	499	1571092
CD & Video	2001	Nill	58	Nill	2059	Nill
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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	Date of launching e-

		is developed	content
NIL	NA	NA	Nill

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	767	17	2	0	1	1	0	100	0
Added	0	0	0	0	0	0	0	20	0
Total	767	17	2	0	1	1	0	120	0

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

100 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
NA	NA

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 incurredon maintenance of physical facilites
641	626.85	278	275.91

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 in house 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 well defined 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 in house 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 installation electrical and otherwise, the same can be communicated to the project office which is in charge of these facilities through campus book 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 up gradation 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.

https://jecc.ac.in/#

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, KEAM Scholarship, Scholarship Asthra Jyothi 2016, Scholarship for 2 , 95 and above, Scholarship for 2, 90-94, TFW Scholarship, Management Scholarship	591	21582571
Financial Support from Other Sources			
a) National	National Scholarship	171	3275000
b)International	NIL	Nill	0
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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 implemetation	Number of students enrolled	Agencies involved
Personal Counseling	19/08/2019	231	Class Tutors
Mentoring	13/08/2019	1470	Faculty advisors, faculty engaging the subjects and HoD.
Infosys Specific training program	24/02/2020	104	Konfidence, Kochi
Aptitude Competency Development Training Program	01/10/2019	362	Konfidence , Kochi
TCS specific training program	10/07/2019	113	Pragmatix Edutech, Kochi
Yoga, Meditation	10/09/2019	60	Ardra P S, Asst.

			Lecturer, Arafa College
Yoga, Meditation	21/06/2019	40	Ardra P S, Asst. Lecturer, Arafa College
Bridge courses	22/07/2019	282	1. Mr. Jomy PL, Education motivator from IMS Centre, Thrissur 2. Fr. Pottackal, Mentor, Thrissur 3. Mr. Varghese Antony, Forest Range Officer, Wadakanchery
Remedial coaching	02/10/2019	243	Staff handling the subject
Idea Pitching Contest	02/05/2019	17	IEDC, Jyothi Engineering College

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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 passedin the comp. exam	Number of studentsp placed
2019	NIL	Nill	Nill	Nill	Nill
2020	NIL	Nill	Nill	Nill	Nill

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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
Nill	Nill	Nill

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Nameof organizations visited	Number of students participated	Number of stduents placed	Nameof organizations visited	Number of students participated	Number of stduents placed
Cognizant	121	15	CSS CORP	90	15

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

Year	Number of students enrolling into	Programme graduated from	Depratment graduated from	Name of institution joined	Name of programme admitted to

2019		higher education				
2019	1	B.Tech	Mechanical Engineering	Northumbria University, England	Msc in renewable and sustainable energy technologies.
2019	1	B.Tech	Mechanical Engineering	College of Cooperation Banking and Management, Kerala Agricultural University	MBA
2019	14	B.Tech	Civil Engineering	APJ Abdul Kalam Technological University	M.Tech
2019	1	B.Tech	Civil Engineering	NICMAR School of Construction Management	MBA
2019	5	B.Tech	Computer Science and engineering	APJ Abdul Kalam Technological University	M.Tech
2019	1	B.Tech	Computer Science and engineering	Manipal University	M.Tech
2019	1	B.Tech	Electronics and communication Engineering	Department of Mechatronics and control Engg, Deakin University Geelong, Victoria, Australia	MS
2019	1	B.Tech	Electronics and communication Engineering	GEC, Idukki	M.Tech
2019	1	B.Tech	Electronics and communication Engineering	NSS college of Engineering, Palakkad	M.Tech
2019	1	B.Tech	Electronics and communication Engineering	Amrita Vishwa Vidyapeetham, coimbatore	M.Tech

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	3

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

Activity	Level	Number of Participants
ANNUAL SPORTS MEET 2019	INSTITUTION LEVEL	230

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	APJ KTU TABLE TENNIS THIRD (MEN)	National	1	Nill	JEC16EC054	MARIAN DAVIS K
2019	ALL INDIA SOUTH ZONE PENCAK SILAT CHAMPIONSHIP GOLD MEDAL (MEN)	National	1	Nill	JEC18CS082	SIJO GEORGE

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

The college has an active student association consisting of student members. The student members of the association are elected through the democratic process of election in which students 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 Chairman, 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 co-curricular activities of the department and the students. Various co-curricular 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 industrialists deliver speeches on topics relevant to the 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, Non-

violence Day, Teachers Day, Farewell Party, World AIDS Day, They also organize cultural festivals like Inter-collegiate Meet 'Tharang', College Day, Onam, Christmas Celebration, etc. Students from each department participate in class committee meetings 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:

375

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

187500

5.4.4 – Meetings/activities organized by Alumni Association :

1. Conducted annual alumni meet 2. Presented Best Jyothian award 3. Amount collected for financial support to flood affecting students 4. 2002-2006 EEE batch students given an endowment to best EEE batch pass out student 5. The mechanical department has given Rinu Memorial scholarship

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 sub-committees which have been nominated by Teachers' Council (2018-19): Admission Sub-committee • Internal tabulation sub-committee • Routine sub-committee • Seminar Proposal sub-committee • Library sub-committee • Student Union Election sub-Committee • Student disciplinary sub-committee • Sub-committee for games and sports • Canteen sub-committee • Journal and publication Sub- committee • Cultural sub-committee 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 extra-curricular 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, IEI, 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 e-Journal/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 Wi-Fi 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 Start-up 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, Keletron, etc. Institution has signed MoU with many industries like Hykon, etc. 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-governace 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 e-mail from the office of the Principal. Each and every IQAC notice is circulated by the coordinator himself through e-mail.
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. E-mail 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 e-mail.
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
2019	NA	NA	NA	Nill
No file uploaded.				

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)
2020	5 day Faculty Development Programme on Renewable Energy Sources: Conversion, Storage Applications	Nill	06/01/2020	10/01/2020	18	Nill
2019	Orientation program for new staff	Nill	03/08/2019	03/08/2019	1	Nill
2019	An orientation program on student projects	Nill	25/07/2019	25/07/2019	15	Nill
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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
Outcome Based Teaching and Learning Pedagogies in Engineering	4	01/07/2019	08/07/2019	8
Empanelled training institute for NSS programme officers orientation course	1	25/10/2019	31/10/2019	7
Guidelines for writing Research Proposals Research Paper	1	10/01/2020	10/01/2020	1
Young faculty induction program	1	17/12/2019	19/12/2019	3
Modern aicte curriculum based engineering edu cation- Pedagogical Issues and outcome based learning	4	02/12/2019	06/12/2019	5
Repair and Rehabilitation of structures	3	02/12/2019	06/12/2019	5
Two day workshop on Pure and Applied Mathematics	1	21/11/2019	22/11/2019	2
Hands on Training on Technical Paper Writing and Advanced Computer Tools	1	13/11/2019	14/11/2019	2
Workshop on AICTE quality initiatives, NITTT NEAT	4	06/03/2020	06/03/2020	1

| two days online workshop on "Patent drafting and processing with importance of trade mark and copyright" | 2 | 06/05/2020 | 07/05/2020 | 2 |

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

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
4	6	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
CERD (Centre For Engineering Research And Development)	49000	The student project titled "Eco-friendly Disposal of Diapers"

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6.4.3 – Total corpus fund generated

58750

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	Nill

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. Lab-in-Charges give talks to make laboratory staff theoretically sound.

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

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
2019	Prepare the AQAR for the year 2019-20	03/12/2019	03/12/2019	02/12/2020	1658
2019	Conduct Internal academic audit	04/11/2019	04/11/2019	06/11/2020	121
2019	Facilitate external academic audit	12/11/2019	12/11/2019	12/11/2019	121
2019	Faculty feedback and monitoring	16/12/2019	16/12/2019	19/12/2019	1658
2019	Internal Examination Quality assurance steps by IQAC	12/08/2019	12/08/2019	23/08/2019	121
2020	Research promotion through Journal club activities	23/01/2020	23/01/2020	03/02/2020	121
No file uploaded.					

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
Pre-marital counseling	25/09/2019	25/09/2019	50	Nill
Talk on "problems faced by adolescents"	15/11/2019	15/11/2019	100	Nill
Webinar on "discovering she in her"	12/06/2020	12/06/2020	85	Nill

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
• The inauguration of Haritha Jyothi – the activities of Natura (Environmental forum) was held on 24.09.2019. • Inaugurated the "Pen drop box" sending a strong message to recycle the used pen. • Initiated a "Vegetable garden" in an effort to imbibe the habit of vegetable cultivation • 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. Testing of water is done at a concessional rate for the staff students and nearby panchayat. • An online interactive portal is also maintained by the CWRE, through which public can share their doubts. Experts from various reputed organization are assigned for clearing the doubts. • CWRE also undertakes research work on domestic water quality issues based on the problems faced by the customers. • We encourage taking up environmentally related B.Tech student projects • Utilising a Solar power plant of 67.30 kW. The average production and consumption is 60kW.

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	Nill
Provision for lift	Yes	Nill
Ramp/Rails	Yes	Nill
Braille Software/facilities	No	Nill
Rest Rooms	Yes	Nill
Scribes for examination	No	Nill
Special skill development for differently abled students	No	Nill

7.1.4 – Inclusion and Situatedness

Year	Number of	Number of	Date	Duration	Name of	Issues	Number of

	initiatives to address locational advantages and disadvantages	initiatives taken to engage with and contribute to local community			initiative	addressed	participating students and staff
2020	Nill	Nill	Nill	Nill	Nill	Nill	Nill

View File

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
Unnat Bharath Abhiyan	01/06/2019	01/06/2019	43

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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 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 Club Activities of environmental forum • 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 counseling 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
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 enrol 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 conformity 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 5lakhs. 3. Every department should engage in industrial consultancy work worth 4. Institution is planning to sign MoU with leading industries and other universities for promoting research culture among students and faculty Infrastructure development College is planning to construct a multipurpose building, sports complex, an amphitheatre, staff quarters and new canteen for the betterment of faculty and students.