

COLLEGE OF ENGINEERING VADAKARA

Mandarathur P.O, Kozhikode District, Kerala 673105

Affiliated to

A P J Abdul Kalam Technological University Kerala

(Approved by All India Council for Technical Education, New Delhi)



The Annual Quality Assurance Report (AQAR)

Submitted To

NATIONAL ASSESSMENT & ACCREDITATION COUNCIL

BANGALORE

2018

The Annual Quality Assurance Report (AQAR) of the IQAC

(For Affiliated/Constituent Colleges)

Institutions Accredited by NAAC need to submit an Annual self-reviewed progress report i.e. Annual Quality Assurance Report (AQAR) to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the IQAC at the beginning of the Academic year. The AQAR period would be the Academic Year. (For example, July 1, 2017 to June 30, 2018)

Part – A

Data of the Institution *(data may be captured from IIQA)*

- 1. Name of the Institution** : College of Engineering, Vadakara
- **Name of the Head of the institution** : Dr.N.K. Narayanan
 - **Designation** : Principal
 - **Does the institution function from own campus** : Yes
 - **Phone no./Alternate phone no.** : 0496- 2537225
 - **Mobile no.** : 9446955830
 - **Registered e-mail** : principal@cev.ac.in
 - **Alternate e-mail** : citvcape@gmail.com
 - **Address** : Kurunthodi, P.O
Mantharathur,
Vadakara
 - **City/Town** : Vadakara
 - **State/UT** : Kerala
 - **Pin Code** : 673105
- 2. Institutional status:**
- **Affiliated / Constituent** : Affiliated
 - **Type of Institution: Co-education/Men/Women** : Co-education
 - **Location : Rural/Semi-urban/Urban** : Urban

- Financial Status: Grants-in aid/ UGC 2f and 12 (B)/ Self financing
(please specify) : Govt. Self Financing
- Name of the Affiliating University : APJ Abdul Kalam Kerala
Technological University (KTU)
- Name of the IQAC Co-ordinator : Dr. Smitha CK
- Phone no. : 9747605515
- Alternate phone no. :
- Mobile : 9747605515
- IQAC e-mail address : iqac@cev.ac.in
- Alternate Email address : citvcape@gmail.com

3. Website address : www.cev.ac.in
Web-link of the AQAR (<http://www.cev.ac.in/AQAR2017-18.pdf>)

4. Whether Academic Calendar prepared during the year? : Yes

Yes/No....., if yes, whether it is uploaded in the Institutional website:

Weblink: (http://www.cev.ac.in /Academic calendar_ evensem18-19.doc)

5. Accreditation Details:

Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1 st	B+	2.54	2017	from:27/11/2017 to: 26/11/2022

6. Date of Establishment of IQAC : 11/11/2014

7. Internal Quality Assurance System

Title of the quality initiative by IQAC	Date & duration	Number of participants/beneficiaries
IQAC Meeting	20/11/17	7 Members
Discussion on AQIS proposal	24/11/2017	8 HoDs
Applied for FDP and RPS to AICTE	Dec 2017	2 from each department
Pre placement Interview training, Mock test etc for final year students	14/3/17 to 27/3/17	100
IQAC Meeting	19/07/18	8 members
Review of all Final year projects through R & D department	3 rd , 4 th 5 th ,8 th & 9 th of Oct 18	Complete s7 students

Title of the quality initiative by IQAC	Date & duration	Number of participants/beneficiaries
Students Participating in the Project contest	23/10/2018	Two students from CE department
Status of Consultancy Work in the Department	Entire semester	Concrete cube test for PWD, Ramco Cements, Soil test and Steel test for Kitco under Dept. of Civil Engg. Rs. – Rs.60,000
IQAC Meeting	21/12/2018	7 members
Academic Audit	One internal and one External audits per Semester 19/12/17,01/02/18 & 10/05/18	All Departments
ISO Upgradation	23 rd March 2018	College
Administrative audit	13 th 14 th & 15 th Nov 18 (3 days)	Administrative section

8. Provide the list of funds by Central/ State Government-

UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc. 114750

Institution/ Department/Faculty	Scheme	Funding agency	Year of award with duration	Amount
ECE	PMKY	Central Govt.	2017	7,65000
CSE	PMKY	Central Govt.	2018	4,25000

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

10. No. of IQAC meetings held during the year : 3

The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website (Yes/No) : Yes

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

Website link : https://www.cev.ac.in/en/wp-content/uploads/2018/12/IQAC_Minutes_Nov2017Dec-2018.pdf

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

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

- * R & D projects review
- * Modal Exams
- * Registration of start-up- STEM by IEDC
- * Authorised centre for Kerala PSC Online Exam
- * ISO Renewal
- *Academic audit

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

Plan of Action	Achievements/Outcomes
IQAC has listed out all academic events and formed academic calendar before the commencement of classes.	As the events at college level and department level are well planned, the effective execution of events are achieved as per the academic calendar.
IQAC planned to develop the research culture of Faculties and Students through paper publications and project proposals.	Number of publications increased. 7 proposals submitted to SERD and 17 proposals submitted to KSCSTE.
IQAC planned to motivate student's entrepreneurship skill.	College has applied for its own start up namely "STEM".

14. Whether the AQAR was placed before statutory body? : Yes

Name of the statutory body : IQAC Date of the Meeting: 21/12/2018

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/No: Yes

17. Does the Institution have Management Information System? : Yes, the Institution has Campus Management System

If yes, give a brief description and a list of modules currently operational.

(Maximum 500 words)

- Campus Management Software (CMS) enables monitoring of all academic activities of the institute. Campus Management System (CMS) software supports faculty in academic planning, teaching-learning organization and scheduling evaluation. Attendance, course plans and daily covered portions are entered in the CMS. The CMS provide the status of student's attendance and progress in teaching and is accessible to students, staff and parents. The quality of teaching-learning process is evaluated using feedback through CMS. The faculty feedback is conducted twice in a semester using CMS. This helps to identify individual areas of weakness and to take corrective measures towards it. Feedback data from CMS and suggestions and recommendations from students' interaction in course committee/ class committee meetings identifies the gap between the planning and its implementation. Internal marks are published on time, the information is communicated to parents through CMS.

The completed modules are

- Students Attendance – Daily, Weekly, Monthly and consolidated reports
- Faculty Lesson Plan and Notes of lesson
- Faculty Profile : Basic and Additional
- Hostel Attendance
- Course entry, Subject allocation and Time table
- Students Profile
- Institution test : Result Analysis and Comparative Analysis
- University Result Analysis
- Online Feedback
- Department event details entry
- Auto mail generation
- SMS
- Students' Progress report generation
- Online Exam

Currently working on:

- Placement
- Office automation
- Online tests

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

Institution has the mechanism for well-planned curriculum delivery and implementation through the following measures: Institution prepares and publishes the academic calendar by listing all major activities of the academic year, in the Campus Management Software (CMS) well in advance. Department activities are planned and executed accordingly. Subject allocation and Timetable preparation are completed minimum three weeks prior to the commencement of each semester classes. Faculty prepares a detailed lesson plan including topics covered, hours allotted, tutorial classes planned, assignments to be given and special classes planned. Lesson plans, study materials, lab manuals and question banks prepared by the faculty are uploaded in the campus management software before the commencement of classes.

Monitoring and effectiveness of curriculum planning, delivery and documentation are done through class committee meetings, online teacher evaluation by student, internal and external academic audits, class PTA meetings and feedback from parents and alumni. Each class has a faculty advisor to monitor the conduct of classes and student performance. Institution has an effective mentoring system in which 20 students are being mentored by each faculty to motivate and support them in their academic activities. Remedial classes are arranged for academically weak students immediately after the first internal evaluation. Bridge courses and orientation classes are given for first year students. Orientation classes are also given to the newly recruited faculty of the Institution. Two series examinations and one model examination is conducted internally in each semester to evaluate student performance and the results are published in the CMS which can be accessed by both students and parents. Daily attendance of the students are also available in CMS. Department level scrutinizing committee is constituted to scrutinize series exam question papers. Availability of text books and reference books for all courses are ensured before the commencement of classes. NPTEL video lectures and e-journals are made available through the digital library and campus network. Department level association activities and technical events conducted by professional

bodies like IEEE, CSI, ISTE etc. contributes in enriching the technical and professional skill of students.

Curriculum Implementation

Class committee meetings: Three class committee meetings are organized twice per semester to get student feedback on curriculum implementation and coverage.

Class PTA meeting: One class PTA meeting is arranged in each semester to interact with parents. Progress reports are given to parents and feed backs are collected from them.

Assignments and tutorials: Minimum three assignments are given for each courses to improve application and problem solving skill of students. Weekly one period tutorials are given for courses prescribed by university, one faculty is assigned to twenty students to improve effectiveness and concept.

Series tests and model exam: Two series exams covering 2 modules per subject are conducted during a semester. A model exam covering entire syllabus is conducted at the end of each semester to make the student well prepared for university exams.

Remedial classes: Remedial classes are arranged for slow learners, immediately after first series exam. Subject experts are appointed to handle remedial classes.

1.1.2 Certificate/ Diploma Courses introduced during the Academic year

Name of the Certificate Course	Name of the Diploma Courses	Date of introduction and duration	focus on employability/ entrepreneurs hip	Skill development
PMKY	CCTV	February 2018, 360 Hrs November 2018, 360 Hrs.	Employability	CCTV installation
PMKY	Data Entry operator	December 2018, 400 Hrs	Employability	Data entry skill
Data base management system	NPTEL	Aug-Sep 2018 8weeks	Employability	Data base skill
Machine learning	NPTEL	Aug-Sep 2018 8weeks	Employability	Machine learning algorithm development

1.2 Academic Flexibility

1.2.1 New programmes/courses introduced during the Academic year : NIL

Programme with Code	Date of Introduction	Course with Code	Date of Introduction
Nil			

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

Name of Programmes adopting CBCS	UG	PG	Date of implementation of CBCS / Elective Course System	UG	PG
B.Tech	CE, EE, EC, EI, CS & IT		2012 onwards		
MCA		✓	2012 onwards		
Already adopted					

1.2.3 Students enrolled in Certificate/ Diploma Courses introduced during the year : PMKY, NPTEL

	Certificate	Diploma Courses
No of Students	27	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
Artificial intelligence workshop	October 2018	60
Expert talk on Engineering perspectives on Cybercrime investigation	24 th September 2018	180
A digital marketing	13 th September,2018	78

1.3.2 Field Projects / Internships under taken during the year

Sl No	Project / Programme Title	Name of Industry/ Institute	Duration of Internship	No. of Students Enrolled for Field Projects / Internships
Department of Computer Science & Engineering				
1	Internship on java programming	KELTRON ,Calicut	One week	18
2	One week Internship on Machine learning	KELTRON ,Kannur	One week	20
3	Internship on Android	Bodhi info solutions, Calicut	5 DAYS	39
4	Industrial training on In-plant Training	Emmu Food Products, Kannur	5 DAYS	10

SI No	Project / Programme Title	Name of Industry/ Institute	Duration of Internship	No. of Students Enrolled for Field Projects / Internships
5	Internship in Web Development	HEDONE, Kannur	5 Days	12
6	Android development	RISS Technologies	10 days	4
7	asp .net c# development	Bodhi info solutions pvt.ltd.	15 days	10
8	Introduction to java programming,Android development	Keltron knowledge center kozhikode	15days	20
9	Information and cyber security	Livewire	20days	10
10	.net technologies	STAN softech pvt ltd	15days	1
11	Web development	vapptek softech solutions pvt. ltd.	30days	1
12	Web development	Runtime solutions	3days	1
13	php	Ipsr solutions	10days	1
Department of Electronics & Instrumentation				
1	Internship on Instrumentation Practices	Camino Infotech , Cochin	Two week	8
2	Industrial Training	KSEB westHill	5 days	5
3	Industrial Training	KSEB westHill	5 days	5
4	Industrial Training	KSEB westHill	5 days	5
5	Android Internship Program	ENZAPPS Software Solutions(KINFRA)	7 days	4
6	Internship	Rubco Huat Woods Pvt Ltd Thalassery	5 days	5
7	Industrial Training	Auto soul Technologies Pvt Ltd	5 days	3
8	Industrial Training	BSNL	15 days	3
9	Industrial Training	Enzapps Software Solutions, Kinfra	5 days	1
10	Industrial Training	JC VALVES, UAE	14 days	3

Sl No	Project / Programme Title	Name of Industry/ Institute	Duration of Internship	No. of Students Enrolled for Field Projects / Internships
11	Industrial Training	Keltron, Kannur	5 days	15
12	Industrial Training	Keltron, Kozhikode	5 days	6
13	Industrial Training	Kerala State Electronics Development Corporation Ltd.	5 days	1
14	Industrial Training	Kinfra techno industrial park	5 days	5
15	Industrial Training	PANTECH ProEd Pvt Ltd ,Cochin	5 days	4
Department of Civil Engineering				
1	Industrial Training	ULCCS Pvt. Ltd. Kozhikode	4 days	3
2	Industrial Training	C-tech Builders, maniyur	5 days	1
3	Industrial Training	Camino Info-tech, Kakkannad, Kochi	15 days	4
4	Industrial Training	Kerala PWD, Special Buildings Sub Division, Kozhikode	5 days	6
5	Industrial Training	Kaippangani Construction, Wayanad	15 days	1
6	Industrial Training	Kerala PWD, Kozhikode	5 days	10
7	Industrial Training	Madikkai Panjayath Office	6 days	5
8	Industrial Training	Home Tech Building Designers, Idukki	5 days	1
9	Industrial Training	NEC, Payyoli	6 days	2
10	Industrial Training	Mohammad Jalal, Bahrain	One month	1
11	Industrial Training	ULCCS, Westhill	5 days	4
12	Industrial Training	Cochin Builders, Chittoor	7 days	1

SI No	Project / Programme Title	Name of Industry/ Institute	Duration of Internship	No. of Students Enrolled for Field Projects / Internships
13	Industrial Training	KSEB, Kozhikode	5 days	1
14	Industrial Training	ULCCS Vadakara	5 days	14
15	Industrial Training	Streamline Consortium, Calicut	25 days	5
16	Industrial Training	District Nirmithi kendra	5 days	3
Department of Information Technology				
1	Python Programming	Keltron ,Calicut	5 days	13
2	Internet Of Things	Info Campus,Calicut	6 days	17
3	Android Development	Keltron ,Calicut	5 days	2
4	Telecommunication	BSNL,Kannur	5 days	1
5	Internet Of Things	BITSFORG,Cochi	10 days	3
6	Android Application Development	RIS Technologies,Calicut	10 days	2
7	DOT NET with sql	Safe Technologies,Palakkad	15 days	1
8	Web Designing	Regional Technologies, Calicut,	5 days	5
9	Basics of HTML,CSS,CS,SQL & Web design	Keltron Knowledge Centre, Kannur,	6 days	5
10	Basics of Electronics, C Programming, IOT & Raspberry pi	UL Cyberpark, Calicut,	5 days	12
11	PHP	KELTRON IT Education Centre, Calicut	6 days	5
Department of Electronics & Communication Engineering				
1	Industrial Training	All India Radio, Calicut	5 Days	12
2	Industrial Training	All India Radio, Kannur	5 Days	5
3	Industrial Training	Athmaja Industries	5 Days	2
4	Internship	BHUMI	30 Days	1

SI No	Project / Programme Title	Name of Industry/ Institute	Duration of Internship	No. of Students Enrolled for Field Projects / Internships
5	Industrial Training	BSNL , Calicut	6 Days	1
6	Industrial Training	Camino Infotech , Cochin	15 Days	16
7	Internship	Centre For Development Of Advanced Computing (C-DAC), Thiruvananthapuram	10 Days	1
8	Industrial Training	Cochin Shipyard Limited.	15 Days	2
9	Industrial Training	Emmu Food Products	6 Days	4
10	Industrial Training	KELTRON	6 Days	40
11	Industrial Training	Ordnance Factory Tiruchirappalli, Tamil Nadu	7 Days	1
Department of Electrical & Electronics Engg				
1	Industrial Training	KSEB	5days	9
2	Industrial Training	KELTRON KANNUR	5 days	27
3	Industrial Training	L& T	10 days	1
4	Industrial Training	INFO CAMPUS	5 days	2

1.4 Feedback System

1.4.1 Whether structured feedback received from all the stakeholders.

1) Students	2) Teachers	3) Employers	4) Alumni	5) Parents
Yes	Yes	Yes	Yes	Yes

CRITERION II -TEACHING-LEARNING AND EVALUATION

2.1 Student Enrolment and Profile

2.1. 1 Demand Ratio during the year 2018-2019

Name of the Programme	Number of seats available	Number of applications received	Students Enrolled
CE	60	*	50
CS	60		49
IT	30		10
EE	60		27
EC	60		20
EI	30		3
MCA	60		5

* Applications are received and seats are filled through centralised allotment, Entrance Commissioner, Govt. of Kerala

2.2 Catering to Student Diversity

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

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of full time teachers available in the institution teaching only UG courses	Number of full time teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2018-2019	944	46	80	12	Nil

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
92	92	<ul style="list-style-type: none"> • NPTEL • SMART Class Rooms • Animation and Graphics • Open source software such as UBUNTU, LINUX, MINT, CENT OS, 	25	25	<ul style="list-style-type: none"> • E-books • Tech Talk • Online Test (Aptitude & Technical) • Video Lectures • Quiz • Brain Storming • Discussion Forum • E-Learning

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

A group tutor is assigned for every 20 students for their academic and personal guidance. The students can approach the respective mentor for discussions any time, this helps the students to get over their difficulties during learning. The duty of the faculty is not only to maintain discipline but also to redress the grievances of the students through proper mentoring system. Counselors /advisors are assigned to each class or group of students in all departments in accordance with the guidance given by the HOD. Academic mentoring is done by the faculty. The main duty of this advisor or counselor is to carefully monitor the student activities like regularity of attendance, the performance of the students in internal and external tests and semester examinations. Students are advised with remedial classes which help to improve their caliber. The mentor acts as a true friend and guide to the students. Remedial Classes are arranged for slow learners which helps weak students to score better marks. In addition to this there is a strong mentoring system to boost the confidence of the slow learners. The faculty interacts with the students and parents. The students are directed to meet the external counselor if needed. Two trained faculty of the institute are acting as counselors. Apart from this an external counselor visits college twice in a week. The mentoring report is maintained and monitored by the HOD and the Principal.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor: Mentee Ratio
990	92	1: 11

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
92	92	NIL	NIL	7

2.4.2 Honours and recognitions received by teachers : Nil

(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

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

Program Name	Program me Code	Semester/ year	Last date of the last semester-end/ year- end examination	Date of declaration of results of semester-end/ year- end examination

B.Tech	All papers	I, III, V & VII Sem	24/11/2017	17/2/2018, 8/3/2018 , 28/3/2018 & 31/1/2018
B.Tech	All papers	II, IV, VI & VIII Sem	12/04/2018	1/8/2018, 8/8/2018, 4/11/2018 & 6/6/2018
MCA	All papers	I, III, V Sem	24/11/2017	18/06/2018,18/06/2018
MCA	All papers	II, IV, VI sem	12/04/2018	12/11/2018,17/11/2018
2.5.2 Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)				
<ul style="list-style-type: none"> • Class tests are conducted in each module. • The slow learners are identified and remedial classes are conducted. • After completion of 1st internal assessment tests, parent teacher meetings are conducted. • Viva voce exams are conducted during lab hours to assess practical skills of students. • Tutorial conducted weekly helps in understanding concepts clearer. • Assignments are given regularly to assess problem solving skill of students. • Model exams are conducted for all courses after completion of syllabus • The students who secured less than 75 % of attendance are asked to attend attendance monitoring committee meeting with their parents to take corrective action. • During university paper evaluation, all faculties are assigned to value the answer scripts. 				
2.5.3 Academic calendar prepared and adhered for conduct of Examination and other related matters (250 words)				
<p>The College strictly follows an academic calendar. The calendar is made available before the beginning of every Semester, which helps the students, parents and teachers to plan their academic year. Each department functions according to the teaching plan and course plan prepared at the department level. The course work is distributed to every faculty member by the head of the department. The faculty members follow a lesson plan which consists of the details regarding institutional objectives and details of contents to be covered. The following activities are implemented according to the schedule of academic calendar.</p> <ul style="list-style-type: none"> • Class committee meetings. • Internal assessments schedule. • Syllabus coverage schedule. • Project review schedule • Academic audit. 				
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 weblink : www.cev.ac.in/en/				
<p>Program outcomes, program specific outcomes and course outcomes for all programs are stated and displayed in institution website. As a sample, the weblink of Civil Engineering department is mentioned below.</p> <p><i>www.cev.ac.in/civil.program</i></p>				

2.6.2 Pass percentage of students				
Programme Code	Programme name	Number of students appeared in the final year examination	Number of students passed in final semester/year examination	Pass Percentage
BTech	CE	65	63	96.9
BTech	EEE	59	32	54.2
BTech	EC	61	47	77.1
BTech	EI	44	30	68.2
BTech	CS	65	45	69.2
BTech	IT	37	27	73
MCA		61	61	100

2.7 Student Satisfaction Survey

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

The feedback forms collected from the students through CMS includes

- End of semester Course evaluation form
- Class Committee meeting minutes
- Exit interview Questionnaire
- Employee Questionnaire
- Alumni Association Questionnaire
- Feedback on Faculty

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 Resource Mobilization for Research : NIL , *Applied

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 Academic year
Major projects				
Minor Projects				
Interdisciplinary Projects				
Industry sponsored Projects				
Projects sponsored by the University/ College				
Students Research Projects (other than compulsory by the College)				
International Projects				

Any other(Specify)				
Total				
<p>* Student Project : 17 projects proposals are submitted for KCSTE funding and 7 projects for SERD funding * Faculty Project : One faculty applied to KTU for external funding</p>				
3.2 Innovation Ecosystem				
3.2.1 Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year : Nil				
List of Workshops/Seminars conducted during the year				
Title of Workshop/Seminar	Name of the Dept.		Date(s)	
Workshop on Artificial Intelligence	ISTE CEV		26,27 October 2018	
Expert talk on Engineering perspectives on Cybercrime investigation	CSI CEV chapter		24 September 2018	
Pre-Placement Training Programme	Training & Placement Cell		14th and 15th of September 2018	
Pre-Placement Training Programme	Training & Placement Cell		5th and 11th of October 2018	
Workshop on Resume Building and Soft Skill	Training & Placement Cell		12,15 October 2018	
Workshop on Application Development on Django Framework	Training & Placement Cell		26-27 October 2018	
Pre placement training	Training & Placement Cell		26-27 October 2018	
Pre-Placement Training Programme	Training & Placement Cell		25/9/2017 to 27/9/2017	
GD Training & Interview Tips	Training & Placement Cell		24/11/2017	
Mock Test & Career Guidance Session	Training & Placement Cell		14/3/2018	
Mock Test & Career Guidance Session	Training & Placement Cell		27/3/2018	
Aptitude & Reasoning Training	Training & Placement Cell		19/11/2018 to 20/11/2018	
C – Programming	Training & Placement Cell		21/11/2018	
Workshop on “She can Code”	IEEE WIE chapter		8/3/18	
3.2.2 Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year				
Title of the innovation	Name of the Awardee	Awarding Agency	Date of Award	Category
Pantheon-Techfest	Wariz and Suhail, of S7 CE	College of Engineering Thiruvananthapuram		1 st Price

3.2.3 No. of Incubation centre created, start-ups incubated on campus during the year						
Incubation Centre	Name		Sponsored by			
Name of the Start-up	Nature of Start-up		Date of commencement			
STEM	Service Software and maintenance		Applied for registration			
3.3 Research Publications and Awards : Nil						
3.3.1 Incentive to the teachers who receive recognition/awards						
State	National		International			
3.3.2 Ph. Ds awarded during the year (<i>applicable for PG College, Research Center</i>)						
Name of the Department	No. of Ph. Ds Awarded					
3.3.3 Research Publications in the Journals notified on UGC website during the year						
	Department	No. of Publication		Average Impact Factor, if any		
National						
International						
3.3.4 Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year						
Department		No. of publication				
MCA		4				
CS		6				
CE		1				
3.3.5 Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or Pub Med/ Indian Citation Index						
Title of the paper	Name of the author	Title of the journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self-citations
Cyberspace in the School Educational System: A Model Cyber Protocol in the Indian Context	Mr. Vijith T K	International Journal of Pure and Applied Mathematics, Academic	2018			

		Publications, ISSN: 1314-3395, 118(16)				
Review on Automated Detection and Classification of Diabetic Retinopathy	Ms. Deepa R	International Journal on Engineering Technology and Sciences (IJETS)	2018			
Current research issues in web data mining: A survey	Ms. Rajalakshmi K D	National conference on recent trends and advances in the field of information technology at Karpagam Academy of Higher Education, Coimbatore	2018			
ROBE- Encryption Protocol for Secure Mobile Cloud Computing,	Ms.shibili T	National Conference on Electrical, Communication and Applied Electronics (NCECAE -2018), Mar. 22 – 23, 2018, Calicut, INDIA	2018			
STEGANOPIN : A Secure Pin Authentication Method,	Ms. Aruna a S	National Conference on Electrical, Communication and Applied Electronics (NCECAE -2018), Mar. 22 – 23, 2018, Calicut, INDIA	2018			
LUNG CANCER DETECTION USING IMAGE PROCESSING TECHNIQUES : A	Ms. Sithara E P	National Conference on Electrical, Communication and Applied	2018			

LITERATURE SURVEY,		Electronics (NCECAE -2018), Mar. 22 – 23, 2018, Calicut, INDIA				
AUTOMATIC DETECTION AND BLOCKING OF SPAM MESSAGES IN SOCIAL MEDIA,	Ms.Akhila M	National Conference on Electrical, Communication and Applied Electronics (NCECAE -2018), Mar. 22 – 23, 2018, Calicut, INDIA	2018			
Survey on Skin Lesion Analysis towards Melanoma Detection.	Ms.Sreena S	IJCSE Vol 6 issue 5 May 2018	2018			
SECURE DATA DEDUPLICATION WITH DYNAMIC OWNERSHIP MANAGEMENT IN CLOUD STORAGE,	Ms.Meera chandran	National Conference on Electrical, Communication and Applied Electronics (NCECAE -2018), Mar. 22 – 23, 2018, Calicut, INDIA	2018			
“Behavior of Single Skirted Footing Model Resting on Non-Uniform Soil”,	Shabana Salih K	Electronic Journal of Geotechnical Engineering, Vol. 22 [2017], Bund. 10. Page: 4109 - 4126.	2017			
“A Model of Legal and Procedural Framework for Cybercrime Investigation in India Using Digital Image Forensics”*,	Vijith T K	Advances in Intelligent Systems and Computing, Springer, Singapore, ISSN: 2194-5357, doi:				

		10.1007/978-981-10-5520-1_16, 2018				
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3.3.6 h-index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the paper	Name of the author	Title of the journal	Year of publication	h-index	Number of citations excluding self-citations	Institutional affiliation as mentioned in the publication

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

No. of Faculty	International level	National level	State level	Local level
Attended Seminars/ Workshops	45	7		
Presented papers	1			
Resource Persons		10	8	2

3.4 Extension Activities

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

Title of the Activities	Organising unit/ agency/ collaborating agency	Number of teachers co-ordinated such activities	Number of students participated in such activities
Packing of food provisions to distribute in flood relief camps	DTPC centre Kozhikode	6 teachers	50 students
Survey to evaluate loss in Maniyur panchayath	Maniyur panchayath	3 Teachers	100
Survey to evaluate loss in Changaroth panchayath	Changaroth panchayath	3 Teachers	100
Survey to evaluate loss in Velam panchayath	Velam panchayath	Velam panchayath	50

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

Name of the Activity	Award/recognition	Awarding bodies	No. of Students benefited

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

Name of the scheme	Organising unit/ agency/ collaborating agency	Name of the activity	Number of teachers coordinated such activities	Number of students participated in such activities
3.5 Collaborations				
3.5.1 Number of Collaborative activities for research, faculty exchange, student exchange during the year : Nil				
Nature of Activity	Participant	Source of financial support	Duration	
3.5.2 Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the year : Yes, with TCS for assistant ship for placement				
Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration (From-To)	participant
Letter of Interest	Placement training using online classes and online exams	TCS	Dec 2018 - one year	
3.5.3 MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year : Yes with TCS				
Organisation	Date of MoU signed	Purpose and Activities	Number of students/teachers participated under MoUs	
TCS	Jan 2017 to 3 years	To use computer lab facility for the conduct of online tests		
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		
Rs.10,00,000		6,72,164		
4.1.2 Details of augmentation in infrastructure facilities during the year				
Facilities	Existing	Newly added		
Campus area (sq.m)	109265	Nil		
Class rooms (sq.m)	1879.35			
Laboratories (sq.m)	4289			

Seminar Halls (sq.m)	429.42	
Classrooms with LCD facilities	25	
Classrooms with Wi-Fi/ LAN	27	
Seminar halls with ICT facilities	4	
Video Centre	1	
No. of important equipments purchased (\geq 1-0 lakh) during the current year.	nil	
Value of the equipment purchased during the year (Rs. in Lakhs)	nil	
Others		

4.2 Library as a Learning Resource

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

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation
KOHA	Fully	3.10	2012

4.2.1 Library Services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	18544	6786382	20000	813668	20544	7600050
Reference Books	2762	897264	190	136549	2952	1033813
e-Books	419	519000	-	-	419	519000
Journals	47	142075				
e-Journals	3 packages	319843				
Digital Database						
CD & Video	1000	-	500	-	1500	
Library automation	KOHA					
Weeding (Hard & Soft)	14-HARD					
Others (specify)						

4.3 IT Infrastructure									
4.3.1 Technology Upgradation (overall)									
	Total Computer s	Compute r Labs	Internet	Browsing Centres	Computer Centres	Offic e	Depart ments	Available band width (MGBPS)	Others
Existing	515	17	17	1	1	1	7	100/1000Mbps	
Added									
Total	515	17	17	1	1	1	7		
4.3.2 Bandwidth available of internet connection in the Institution (Leased line)									
100 MBPS									
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				
NPTEL Video Course, Other Library Links , E-Book Websites					Available in college intranet				
4.3.4 E-content developed by teachers such as: e-PG-Pathshala, CEC (under e-PG-Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc : NIL									
Name of the teacher	Name of the module			Platform on which module is developed			Date of launching e - content		
4.4 Maintenance of Campus Infrastructure									
4.4.1 Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year :									
Assigned budget on academic facilities	Expenditure incurred on maintenance of academic facilities			Assigned budget on physical facilities			Expenditure incurred on maintenance of physical facilities		
20123700	1520977			7525000			5173902		
4.4.2 Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (<i>maximum 500 words</i>) (information to be available in institutional Website, provide link) : www.cev.ac.in									
<p>The College campus is spread over an area of 21 acres of land. It has an administrative block, 4 department blocks, 5 workshop buildings, Canteen and Substation. The college has 7 academic departments with adequate physical facilities and infrastructure for the existing academic programmes and administrative functions, co-curricular and extra-curricular activities. All the buildings of the institution has newly constructed ramp facility for wheel chair or for the easy walking Administrative block comprised of all classrooms, drawing hall for 1st years, centre computing facility and Library. One department block has two departments. One block is meant for Post graduate students</p> <p>College of Engineering Vadakara has 27 classes, 4 tutorial rooms, 2 drawing halls 59 laboratories. All the UG classrooms have a capacity to accommodate 60-70 students. All class rooms have ceiling mount LCD projectors, Lecture Stand, Uninterrupted Power Supply, wooden tables and wooden benches. Tutorial rooms can accommodate 30-35 students. Each department block has one tutorial room. Three department block have air conditioned a seminar halls equipped with ceiling mount</p>									

LCD projector, Lecture Stand, Uninterrupted Power Supply and Sound system. The Conference hall in administrative block is ideal for the meeting of 30 individuals. This employing cutting edge audio-visual, videoconferencing and distance-learning facilities.

The air conditioned Central Computing Facility has 50 terminals for the internet facility. Internet at 100 mbps is provided through dedicated OFC cable. Around 500 computers are in use in various departments and all are having internet facility.

The college having a registered co-operative store with all kinds of stationery materials required for students and staff at reduced price of the college. Basketball court, Shuttle badminton court and football/cricket court are available in the campus

The students are accommodated in Four Ladies Hostels with a capacity of 400. The construction work of Ladies hostel in campus is nearing to completion. Transportation facility is provided by college through 10 Numbers of 50-seated buses for transporting staff and students in the mornings and evenings.

The master plan of the College gives direction to the spatial/infrastructural planning and development in sync with the academic growth. The requirements are submitted by HoDs to the Principal, the relevance of the proposal are discussed in IQAC/ academic council and the proposal is forwarded to head office for sanction. The management will provide administrative sanction after the discussion in executive committee. Major civil works are done through head office, the minor civil works and procurement of lab equipment's/furniture are done from the institution after tendering. The purchase is done as per store purchase rule. The implementation of the policy is primarily through the HoDs, academic council, Management and Principal.

Maintenance of physical facilities

The maintenance and upkeep of the infrastructure facilities and equipment of the college is carried out by sweepers, electrician/plumber under the supervision of civil engineer and electrical engineer. Computer Maintenance is done under the supervision of Computer instructor

During class committee meetings, students' feedback are taken on infrastructure facilities and suitable actions are taken, wherever required. The corridors cleaned with sanitation liquid once every day. Rest rooms in all floors are sanitized and cleaned twice every day. The lawns and gardens are cleaned and maintained by a Gardener. Water coolers/purifiers are provided in each department block and workshop buildings to provide potable drinking water.

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
a) National	E Grants	196	2515425
b) International	Nil		

Financial support from other sources :Nil

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
Language Lab	Semester I and II,2017-2018	183	Own Institution

Personal Counselling and Mentoring	Throughout the program		College is having a professional student counsellor to do personal counselling and mentoring.
Bridge courses	01.08.2017	57	Own Institution

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

Year	Name of the scheme	Number of benefited students by Guidance for Competitive examination	Number of benefited students by Career Counselling activities	Number of students who have passed in the competitive exam	Number of students placed

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

Total grievances received	No. of grievances redressed	Average number of days for grievance redressal
3	3	2 weeks

5.2 Student Progression

5.2.1 Details of campus placement during the year 17-18 , Total students placed : 27

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
FACE	60	4	BYJU'S	75	1
			NUCORE	30	1
			ADITYA BIRLA CAPITAL	32	1
			RUNBOOK	61	2
			POSTPOSITIVES	40	1
			SBI CARDS	100	1
			CAS CONSTRUCTION	35	1
			DIRECTIONS	47	3
			MVK ASSOCIATES	30	1
			UST GLOBAL	40	1
			D TECHNOLOGIES	20	2
			COGNIKOR	40	1
			DBS PRIVATE LIMITED	30	2
			CYBROSYS	25	2
			ACUMEN TECHNOLOGIES	32	3
			CTS	28	1

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
2018	2	B Tech	CE		M Tech
2018	4	B Tech	EIE		M Tech
2018	4	B Tech	ECE	RIT	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	No. of Students selected/qualifying	Registration number/roll number for the exam
NET		
SET		
SLET		
GATE		
GMAT		
CAT		
GRE		
TOFEL		
Civil Services		
State Government Services		
Any Other		

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

Activity	Level	Participants
Volleyball Team,	University	* Ms. Athira Raveendran, S5 MCA, Ms. ANAGHA Ms.CHNDRAN, Ms.HARITHA MADHAVAN AND Ms.JAYAVALLI S7 IT

* Members in College Volleyball Team, and the team won in KTU Sports meet, October 2018 and Placed in fourth position

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

Year	Name of the award/medal	National/International	Sports	Cultural	Student ID number	Name of the student

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 Union. The Students are encouraged by the College to form a union with elected representatives, in parliamentary mode. Open announcement is made in the College with regard to nominations and election date for the formation of Students Union. The candidates who are interested and eligible can file the nomination to the Election commissioner. They are allowed to muster the students within the fixed duration. Election is conducted for the post of Class representatives; one for 20 students in which one should be a lady. From these elected members, Student President, Vice-President Secretary, Joint Secretary, Treasurer, Arts Secretary, Magazine Editor, Sports Secretary, Hostel Secretary and Social Service League Secretary. Election is conducted on 31/10/2018 during this year.

Major activities of the Student Union

- Students Union gives due importance to the overall welfare of the students.
- The Union organizes various functions like College Day, Sports Day, College Cultural festival, Technical festival etc.
- The inter and intra College competitions are conducted for various festivals. Students participated in different competitions in other institutions with the assistance of student union.
- The union members used to help the department which is organizing various training programmes for the development of the students.
- The union members are actively associated with blood donation camp, hair donation camp and mobilize the students to donate blood and hair.

College maintains fund collected from students in the head of Union and Fine Arts for Union activities and College Cultural activities. The Union members also get sponsors for their activities. Apart from Union Council comprising of 12 members, Sports committee, Hostel committee, Womens Cell, Library committee have student's representatives and the students play a vital role in organizing all activities related to their respective committee.

5.3 Alumni Engagement

5.3.1 Whether the institution has registered Alumni Association? Yes/No, if yes give details (maximum 500 words):

CEV Alumni Association is very active and a warm rapport is maintained through annual meetings. 5% of permanent faculty are alumnae of the institute. Alumnae scholarships are distributed to few financially weak students every year. Alumni have sponsored a basketball court costing Rs 5 lakhs, donated 1.75 lakhs for the beautification of reception area and 1 lakhs for library books. The College has instituted a scholarship through alumnae for economically poor students who are good in studies and are not eligible for any other scholarships.

Dakshina- A house is constructed by alumnae and students for a poor family selected by the Pachayath Authority costs 8 lakhs. 2006-2010 batch of students initiated the donation of a house in the name of "Dakshina" to a poor family in the Maniyur Gramapanchayath contributed 3.75 lakhs.

Association of CEV Alumni (CEVAA) is a vibrant organization which caters for the inculcation of intimate fellowship and frequent interaction among the former students of the College. Former staff and faculty are in touch with the institute and visits occasionally.

Dr. Nikita Hari who had completed PhD from Cambridge University in 2018 was selected as one among 50 women engineers in the world is the alumnae of the department of Electrical & Electronics

Engineering in CEV.
5.3.2 No. of registered enrolled Alumni:
1000 members
5.3.3 Alumni contribution during the year (in Rupees)
2.75 lakhs
5.3.4 Meetings/activities organized by Alumni Association
Executive body meetings, General body and Get together of 1 st batch in their 15 th year of completion of course. Interaction with a group of final year students
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)
<p>Vision</p> <p>To be a world class technical education institute, with the highest quality and standards of excellence to meet the demands of business, industry and the community and thereby to contribute to India’s socio-economic progress</p> <p>Mission</p> <p>To develop high quality personnel with a sound footing on basic engineering principles, innovative research capabilities and exemplary professional conduct to lead and to use technology for the progress of mankind, adapting themselves to changing technological environment with the highest ethical values as the inner strength</p>
6.1.2 Does the institution have a Management Information System (MIS)? Yes/No/Partial: Yes
6.2 Strategy Development and Deployment
6.2.1 Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):
<p>Curriculum Development :</p> <p>The college is having the affiliated status; the courses are approved by the university at the time of starting of new course. The scheme, syllabus, detailed curriculum, including course objectives, total credit, list of text books/reference books to be followed and the evaluation pattern are provided by the university.</p> <p>The university encourages the teaching staff to attend syllabus revision meetings. Formal and informal recommendations are given by the faculty members in the curriculum development of various programs.</p> <p>Based on the stakeholder’s feedback and the decision of the Academic Council, new reforms are implemented in teaching learning process in the college level.</p> <p>As per curriculum students has to acquire 100 grade points extra. Grade points are allotted for internships, extension activities and extracurricular activities, which enhances overall growth of the students</p>

Teaching and Learning

At the commencement of the semester, the institution prepares the academic calendar containing the relevant information regarding the teaching - learning schedule, holidays, dates of internal examinations, external examinations, fests, meetings of academic council, HoDs, staff, course committee, class committee etc.

Every teacher is assigned 16 hours of work per week as per AICTE norms. The individual departments prepare their weekly timetable distributing the teaching hours, practical hours, guidance, ward counselling hours etc.

The number of actual working days is as per calendar in an academic year, at 6 hours per day comprising a minimum of 70-75 days per semester.

The College strictly follows an academic calendar. The calendar is made available before the beginning of every Semester, which helps the students, parents and teachers to plan their academic year.

Examination and Evaluation

The evaluation process includes 1/3rd of marks by continuous internal assessment and 2/3rd of marks by end semester examination. Mark distribution is as below:

University	Program	Marks for Series Test	Assignment	Internal Marks	External Marks
KTU	B.Tech	20 * 2	10	50	100
	MCA	15 *2	10	40	60

Internal marks of 50 are provided based on the two series sessional test and two assignments. Marks for series are 20 and mark for assignment is 10. Student is eligible to write external exam if he/she acquires a minimum of 23 marks and 75% attendance. Those who get 18 marks can attend summer course.

External examination is conducted by University for 100 marks and 45% marks and 75% attendance are required for a pass in the examination.

Valuation of university answer sheets are valued from Central Valuation camp as per appointment by university and cross checked by a second examiner is followed for UG papers

PG papers are 1st evaluated by concerned faculty and 2nd valuation is conducted by an external examiner.

Research and Development

In order to promote a research culture, CEV has instituted several support systems for conducting research oriented projects, publishing their output in terms of publications, proposal for external funding, application for patents etc.

To promote the research ambience, we are associating with various research organizations like Centre for Engineering Research and Development (CERD), Kerala State Science and Technology Centre (KSCTSE), AICTE, UGC under the R & D cell.

We have nominated Prof. Dr. R Sridharan, Professor, NIT Calicut as Senior Research Advisor to promote and support R&D Cell., R& D cell focuses on

- i) Providing information and research guidance to teaching staff about the various funding agencies
- ii) Encouraging interdisciplinary research
- iii) Motivating the faculty of each department to publish articles
- iv) Commendable weight age is given to research output while identifying the best outgoing students

Library, ICT and Physical Infrastructure / Instrumentation

A well-stocked, spacious central library with browsing facilities is available to students and staff. It houses about 20,000 volumes of books and subscribes 49 print journals. In addition, the library has a collection 419 e-books and subscribes 7 e-journals. About 500 computers and several licensed software are available in various labs for students. Extended library working hours is yet another feature

Human Resource Management

The recruitment procedures, service rules are made transparent and employees are benefitted with CL, EL, ML and EPF.

Non-Teaching staff have ESI facility for their family members

Employee's salary will be credited in the bank account directly.

The institution encourages the employees for higher education, presenting research papers in National/International conferences with financial assistance.

Industry Interaction / Collaboration

Industry interaction has provided opportunity for the students to undergo in plant training, industrial visit, etc.

Admission of Students

Students are admitted in Merit, Management & NRI quota as per the norms of the Government and CAPE. Eligibility for admission is as specified in the Common Entrance Examination conducted by the Govt. of Kerala. The merit & management students are directed by the Chief Entrance Commissioner according to the Entrance ranking through online counselling. 50% seats are free seats, 35% seats are management seats and 15% seats are reserved for NRI students selected directly on merit basis.

Government Quota (60% of sanctioned intake): The intake of students for the B.Tech programme is based on the rank list prepared by the CEE appointed by the Government of Kerala. The rank is published considering the results of the KEAM and marks of the Higher Secondary Examination in 50:50 proportions. Based on the options regarding institution and programme, opted by the eligible candidates, the CEE allocates students to the institution following various reservation norms constituted by the Government of Kerala.

Management Quota (35% of the sanctioned intake): Selection to this category is done by the CAPE from among the applications submitted by candidates who are declared eligible for admission by the

Commissioner of Entrance Examinations, Government of Kerala.

NRI Quota (5% of the sanctioned intake): Selection to this category is done by the CAPE from among the applications submitted by candidates who are declared eligible for admission by the Commissioner of Entrance Examinations, Government of Kerala. Eligibility Conditions for the various programmes are as follows: The minimum eligibility for B.Tech programme in the merit category is a pass in the Higher Secondary examination (10+2 level) with 50 percent marks in Mathematics and overall 50 percent for Physics, Chemistry and Mathematics put together. For the SC/ST category, a pass in the Higher Secondary examination is the criterion.

• **Post graduate programmes**

Admission to MCA program is based on rank list published by the rank list approved by DTE. Any Government agency will be entrusted to conduct entrance examination under the supervision of Justice James committee. 100% seats for MCA programme are filled from the rank list.

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

Planning and Development

Administration

Finance and Accounts

Student Admission and Support

Examination

6.3 Faculty Empowerment Strategies

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

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 (in Rs.)
2017	Prof.Dr.NK Narayanan	Challenges and opportunities in Engineering Education – Kerala perspectives in National Scenario		3166
2018	Dr. Babitha K V	Challenges and opportunities in Engineering Education – Kerala perspectives in National Scenario		3116
2018	Ms.Shahanaz N	Challenges and opportunities in Engineering Education – Kerala perspectives in National Scenario		2266
2018	Mr. Shyamesh K G	Challenges and opportunities in Engineering Education –		2266

		Kerala perspectives in National Scenario		
2018	Ms. Saritha M	Outcome based NBA accreditation with emphasis on how to prepare SAR		7442
2018	Mr. Anoop S	Outcome based NBA accreditation with emphasis on how to prepare SAR		7442
2018	Mr. Varun Chand	Outcome based NBA accreditation with emphasis on how to prepare SAR		7442
2017	Ms. Shabhana Salih	preparedness for accreditation by NBA		1746
2018	Mr.Nithin T	training program on FPGA based control Algorithm development for sitcom		3599
			Total	38,435

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

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	Dates (from-to)	No. of participants (Teaching staff)	No. of participants (Non-teaching staff)

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

Title of the professional development programme		Number of teachers who attended	Date and Duration (from – to)
(1)	Three Days Residential Workshop on “Machine Learning”, organized by Dept. of Computer Applications, CUSAT in Association with DAKF	1	22-24 June,2018
(2)	Two Days National Workshop on “Medical Image Analysis and Detection Techniques with Advanced Algorithms”, Organised by KONGU Engineering College, Perundurai, Erode	1	20 -21 July 2018
(3)	Two Days Seminar on “Deep Learning Techniques and Tools for Medical Applications”, Organised by Baselios Mathews II College of Engineering	1	24-25 September, 2018
(4)	“FDP on Image Processing and Computer Vision”, Organised by Dept. of Electronics and Communication Engg, Govt. Engg College Kannur,	2	10-15 December, 2018
(5)	One day workshop on “Quality Research”, organized by IEEE Educational Activities, Kerala Section at CUSAT	1	07-07-2018

(6)	One Day Workshop on “KPSC Online Examination”, Organised by Kerala Public Service Commission, at Ernakulam,	1	23 November, 2018
	Title of the professional development programme	Number of teachers who attended	Date and Duration (from – to)
(7)	FDP on AI and Machine Learning at Adi Sankara College of Engineering and Technology, Kalady	1	14-12-2018 to 19-12-2018
(8)	FDP on Machine Learning at College of Engineering Thalassery, Thalassery, Kannur.	1	23 April 2018 to 27 April 2018.
(9)	STTP on Emerging fields of Mathematics for Researchers , at College of Engineering Thalassery, Thalassery, Kannur	5	18 December 2017 to 22 December 2017
(10)	STTP on Research Challenges in Data Analytics at Sree Chitra Thirunal College of Engineering ,Thiruvananthapuram	2	6 th Dec 2018 to 13 December 2018
(11)	DTE sponsored FDP on Algorithms in Machine Learning at CET,Trivandrum	2	18 December 2017 to 22 December 2017
(12)	FDP on Artificial Intelligence and Machine Learning, at Mohandas College of Engineering and Technology	1	16 th July 2018 to 20 th July 2018.
(13)	FDP on Education Technology ,at TKM College of Engineering,	1	12 th February to 17 th February
(14)	TEQIP sponsored FDP on Outcome Based NBA Accreditation with Emphasis on How To Prepare SAR, at College of Engineering Perumon,	2	11 January 2018 to 13 January 2018
(15)	KTU Sponsored FDP on Advances in Machine Learning at Rajadhani College of Engineering ,Attingal ,Trivandrum	1	, during 17 December 2018 to 21 December 2018
(16)	Research challenges in data analytics;; organized by Dept. of computer science and eng.SCT Trivandrum.	1	Dec 6-13 , 2018
(17)	"Design thinking"; organized by St.Joseph’s college of engineering and technology, Palai	2	july 9-11 2018
(18)	"Machine Learning"; organized by St.Gitz college ; Kottayam	1	June 18-22, 2018;
(19)	5 days FDP on “Guidance and Counselling” organized by ISTE, SJCET Palai	2	04/12/2017 to 08/12/2017.

(20)	5 days FDP on “Analog Electronics” organized by Saintgits College of Engineering, Kottayam	1	,Jan 2018
	Title of the professional development programme	Number of teachers who attended	Date and Duration (from – to)
(21)	Workshop on AICTE Initiatives’ at Vidya Academy of Science & Technology, Thrissur.	1	on 16/12/2017
(22)	‘Smart India Hackathon 2018 Awareness workshop’ at SCMS School of Engineering & Technology.	1	on 9/1/2018
(23)	‘Training and Placement Officers Work shop By AICTE’ at SNGCE, Kadayirippu, Ernakulam	1	on 13th January 2018
(24)	ICT Academy of Kerala ‘Top 10 event’ at Hilite Business park Kozhikode	1	, on 2nd February 2018
(25)	FDP on LaTeX conducted by ICFOSS for KTU held at Technopark, Trivandrum	1	on 17th & 18th of July 2017
(26)	Faculty Development Program on “Artificial Intelligence for Biomedical Applications “organised by Department of EEE, TKM College of Engineering and Sponsored by TEQIP II	1	11-15 December 2017.
(27)	Hands on Workshop on Internet of Things for Electrical applications” organised by Department of EEE, CET and sponsored by KTU	1	during 16-21 July 2018
(28)	DTE sponsored faculty development program on “Embedded System Design for Power Electronic Converters “at CET, Thiruvananthapuram.	1	3-7 December 2018
(29)	Six Days STTP on “Information Security and Ethical hacking”, organized by Dept. Of Computer Science and Engineering and Sponsored by DTE, Govt. Engg,College Kannur	1	19-24 February 2018.
(30)	An excursion to topics in algorithm design sponsored by KTU,Model engineering College,Ernakulam,	1	28-30 December 2017
(31)	FDP on AI and Machine Learning at Adi Sankara College of Engineering and Technology, Kalady	1	14-12-2018 to 19-12-2018
(32)	Five-day International Workshop on Cyber Security, Cyber Forensics, Cyber Law (Cyber Cube – 2018) organized by Cyber Intelligence Research Laboratory, CUSAT in association with Kerala Police Academy, Thrissur	1	20-24 April, 2018
(33)	Two Days The Hands-on National	1	2-3 February 2018.

Workshop on “Ethical Hacking”, Organized by Department of Computer Science, Rajagiri College of Social Sciences, Kalamassery, Kochi, Kerala		
Title of the professional development programme	Number of teachers who attended	Date and Duration (from – to)
(34) Two Days Workshop on “CUSAT Course Authoring Program”, Organized by IIT Bombay and MOOC, CUSAT	1	23-24 November 2017
(35) Challenges and opportunities in Engineering Education –Kerala perspectives in National Scenario	4	October 5th 2017
(36) Outcome based NBA accreditation with emphasis on how to prepare SAR	3	11-13 January 2018
(37) preparedness for accreditation by NBA	1	14-15 December 2017
(38) training program on FPGA based control Algorithm development for sitcom	1	26- 27 July 2018

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

Teaching		Non-teaching	
Permanent	Fulltime	Permanent	Fulltime/temporary

6.3.5 Welfare schemes for

Teaching	Provident Fund, Group Insurance
Non-teaching	Provident Fund, ESI, Group Insurance
Students	E grants, Fee Waver scheme Alumnae Scholarship, Merit Cum Means Scholarship Group Insurance, Cooperative Department scholarship

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly (with in 100 words each)
Internal audits are conducted during the end of each financial year and after all fee collections. External
auditors (Chartered accountants) audits full transactions yearly as per direction from Head office.

A group of three from head office and other colleges under management conducted audit during this year.

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

Name of the non government funding agencies/ individuals	Funds/ Grants received in Rs.	Purpose
TCS	2,00,000	Online examinations
Ramco cements, Kitco	60,000	Consultancy

6.4.2 Total corpus fund generated :

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	Inter departments
Administrative	Yes	Chartered Accountant	Yes	3 persons from other institutions
6.5.2 Activities and support from the Parent – Teacher Association (at least three)				
The Institute arranges for a parent – teachers meet once in a semester during a weekend. The parents are identified and invited by faculty advisors of all the departments. Student’s academic performance, university results, attendance and other related issues are discussed.				
6.5.3 Development programmes for support staff (at least three)				
For the supportive staff at college level Training programs on computer applications, filing, accounts etc., are organized periodically.				
6.5.4 Post Accreditation initiative(s) (mention at least three)				
<ul style="list-style-type: none"> • ISO 2001-2015 upgradation • Got Consultancies • Students are encouraged for student’s internship programs. • Quality research and patents improvement has been addressed. 				
6.5.5				
a. Submission of Data for AISHE portal : (Yes /No) Yes				
b. Participation in NIRF : (Yes /No) No				
c. ISO Certification : (Yes /No) Yes				
d. NBA or any other quality audit : (Yes /No) Yes				
6.5.6 Number of Quality Initiatives undertaken during the year				
Year	Name of quality initiative by IQAC	Date of conducting activity	Duration (from---- -to-----)	Number of participants
2018	Review of Final year projects	3 rd , 4 th , 5 th , 8 th & 9 th of October 2018	5 days	7 faculty and 281 students of final year

CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES		
7.1 - Institutional Values and Social Responsibilities		
7.1.1 Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)		
Title of the programme	Period (from-to)	Participants

		Female	Male
“She Diary” – Sharing experience of her	AN of 8/3/2018	7	3
Let Me Speak-Voice of Malabar	06/03/2018	15	14
He about She	07/03/2018	12	8
The Lavender- Distribution of purple ribbon	10/03/2018	23	19

7.1.2 Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:
Percentage of power requirement of the College met by the renewable energy sources

7.1.3 Differently abled (Divyangjan) friendliness

Items Facilities	Yes/No	No. of Beneficiaries
Physical facilities	Yes	Nil
Provision for lift	No	Nil
Ramp/ Rails	Yes	Nil
Braille Software/facilities	Yes	Nil
Rest Rooms	Yes	Nil
Scribes for examination	Yes	Nil
Special skill development for differently abled students	Yes	Nil
Any other similar facility		

7.1.4 Inclusion and Situatedness

Enlist most important initiatives taken to address locational advantages and disadvantages during the year

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date and duration of the initiative	Name of the initiative	Issues addressed	Number of participating students and staff
		1. Packed and distributed food and dress during flood. 2. Conducted survey of loss in 4 villages due to flood		“Srushti”		

7.1.5 Human Values and Professional Ethics

Code of conduct (handbooks) for various stakeholders

Title	Date of Publication	Follow up (maximum 100 words each)

7.1.6 Activities conducted for promotion of universal Values and Ethics

Activity	Duration (from-----to-----)	Number of participants

7.1.7 Initiatives taken by the institution to make the campus eco-friendly (at least five)		
Implemented Green protocol Initiative by the Maniyur Granma Panchayath. Plastics collected from the campus are handed over to panchayath authority Usage of plastics are almost eliminated.		
7.2 Best Practices		
<ul style="list-style-type: none"> • Describe at least two institutional best practices • Upload details of two best practices successfully implemented by the • institution as per NAAC format in your institution website, provide the link <p>Best Practice I: Campus Management System (CMS)</p> <ul style="list-style-type: none"> • The main objective of the CMS is to facilitate all administrative and academic details regarding the students, their study, progress and academic performances in a transparent manner to the parents and students and staff to achieve greater success. • Management took initiative to implement e- office with help of govt agency. • Entry of attendance is done through the CMS app from the class itself <p>Best Practice II: In-house project – leads to Inculcation of Research Culture among the Faculty and Students.</p> <ul style="list-style-type: none"> • During last year 50% of the main projects are done from college itself. • During this year R & D cell reviewed all projects before selection and and conducted a presentation after the completion of design part of 30% of the work. • 17 project proposals are send to KCSTE and 7 for CERD. 		
7.3 Institutional Distinctiveness		
Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust Provide the weblink of the institution in not more than 500 words		
<p>The Institution decided to improve the technical skill through projects. R&D cell members and a group of faculty reviewed all final year projects from 3rd Oct to 9th Oct 2018. As per University rules project batch should not have greater than 4 students. All batches presented their project idea and discussed the implementation plan, Project having inferior quality are rejected and the students selected new topics. Majority of the projects are of interdisciplinary areas. The projected selected are in the area of Machine learning, networking, data science, IOT etc. Electrical branch is more concentrated on non-conventional energy problems like solar energy conversion, storage etc. Civil branch concentrated on low cost materials having capacity to withstand flood, earth quake etc. The faculty group assessed the progress of work at the end of the semester.</p> <p>An inter disciplinary project proposes a new method for water purification i.e. E Collie free water, In which measurement part is done by Electronics department and water filtration by Civil Dept. Vehicle density driven traffic signalling and vehicle to vehicle communication system, Third eye (Walking stick) to help blind person to cross the road are some of them.</p> <p>The following are the list of project proposal submitted for funding.</p>		

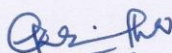
SI No	Title
1	Pavement Stabilization Using Geotextiles
2	An effective treatment method for septic tank effluent mixed well water in the flood affected region
3	Recycled building blocks
4	Treatment and reuse of grey water in college campus
5	Electromagnetic suspension system for improved vehicle dynamics
6	Automated Manhole surveillance system using drone
7	Crop protection and intrusion detection system
8	Brain controlled wheel chair
9	Zero investment method for Grid power factor Improvement by implementation of new control scheme for grid connected solar panel
10	Automated product retrieval and purchase using PLC
11	FPGA based hardware implementation of islanding detection and MPPT for grid connected Solar Plant
12	Classification of Cancerous profiles using Machine Learning
13	Smart WIFI Trashbin
14	Cooperative Hazard awareness and avoidance system using V2V communication
15	Water quality monitoring system using wireless sensor network in flood effected areas
16	Extraction Of Load Harmonics And Reactive Current Demand From Load Current For STATCOM Applications

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

- Increase number of publications of students and faculty.
- Project coordinators are directed to publish at least one paper for each final year project.
- Decided to completion of at least one NPTEL course compulsory for final year students
- Faculty members and students are motivated to do higher studies.
- Increase participation of students in national/inter-national technical events.
- Train the students in upcoming technologies through online courses to meet industry expectations.
- Get more Funded projects from funding agencies.
- Conduct of department activities by renowned alumni, professional bodies and MOU.
- Strengthening the industry institute interaction by conducting various events such as guest lectures, industrial visit, workshop and faculty development programmes.
- Organise environmental awareness, personality development and entrepreneurship development programmes.

Name : Dr. Smitha C. K.

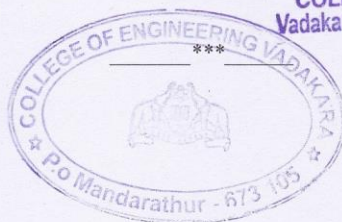
Name : Dr. N. K. Narayanan


28.12.18

Signature of the Coordinator, IQAC



Signature of the Chairperson, IQAC
PRINCIPAL
COLLEGE OF ENGINEERING
Vadakara - P.o Mandarathur - 673 105



For Communication with NAAC

The Director

National Assessment and Accreditation Council (NAAC)

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