



**JCT COLLEGE OF ENGINEERING AND  
TECHNOLOGY**  
**Pichanur, Coimbatore – 641 105**



# **Internal Quality Assurance Cell**

## **AQAR REPORT**

**2017 - 2018**

## Part – A

### Data of the Institution

1. Name of the Institution                      **JCT College of Engineering and Technology**

- Name of the Head of the institution :    **Dr.G.Ramesh**
- Designation:    **Principal**
- Does the institution function from own campus:    **Yes**
- Phone no./Alternate phone no.:            **0422- 2636900**
- Mobile no.:    **9361488804**
- Registered e-mail:    **principal@jct.ac.in**
- Alternate e-mail :    **iqac@jct.ac.in**
- Address        : Pichanur
- City/Town     :    **Coimbatore**
- State/UT      :    **Tamilnadu**
- Pin Code      :            641105

2. Institutional status:

- Affiliated / Constituent:    **Affiliated**
- Type of Institution:    Co-education/Men/Women    **Co-education**
- Location : Rural/Semi-urban/Urban:    **Rural**
- Financial Status: Grants-in aid/ UGC 2f and 12 (B)/ Self financing  
(please specify)    **Private**
- Name of the Affiliating University:    **Anna University**
- Name of the IQAC Co-ordinator :    **Dr.V.J.Arulkarthick**
- Phone no. :    **0422- 2636900**
- Alternate phone no.
- Mobile:    **+91-9361433301**

- IQAC e-mail address: **iqac@jct.ac.in**
- Alternate Email address: **arulkarthick.vj@jct.ac.in**

**3. Website address: [www.jct.ac.in](http://www.jct.ac.in)**

Web-link of the AQAR: (Previous Academic Year): <http://www.jct.ac.in/internal-quality-assutance-cell/>

**4. Whether Academic Calendar prepared during the year?**

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

Weblink: <http://www.jct.ac.in/academic-calendar/>

**5. Accreditation Details:**

Cycle	Grade	CGPA	Year of Accreditation	Validity Period
<b>1<sup>st</sup></b>	<b>B</b>	<b>2.03</b>	<b>2017</b>	<b>from:2017 to: 2022</b>

6. Date of Establishment of IQAC: DD/MM/YYYY: **05.07.2017**

**7. Internal Quality Assurance System**

7.1 Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & duration	Number of participants/beneficiaries
<b>Regular meetings of IQAC</b>	<b>Quarterly</b>	<b>IQAC Committee Members</b>
<b>Teaching through ICT</b>	<b>Whole Year</b>	<b>50% of students</b>
<b>Students Mentoring</b>	<b>Weekly</b>	<b>All Student</b>
<b>Workshop on Teachers qualities and Team Building</b>	<b>29.07.2017 – 30.07.2017</b>	<b>24</b>
<b>FDP on Instructional Model for Outcome Based Education</b>	<b>04.06.2018 – 09.06.2018</b>	<b>52</b>

**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
<b>Dr.G.Rajiv Suresh Kumar</b>	<b>National Conference</b>	<b>DRDO</b>	<b>2012</b>	<b>Rs.40,000</b>

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

\*upload latest notification of formation of IQAC

10. No. of IQAC meetings held during the year: **04**

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)

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

If yes, mention the amount:

Year:

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

- \* **Orientation Programme**
- \* **Fee Concession to outstanding students in academics, cultural and sports**
- \* **Use of ICT based learning**
- \* **Extension talks by different experts held**
- \* **Participation in Seminars/Workshops/Conferences by the faculty**

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

Plan of Action	Achievements/Outcomes
*Orientation Programme	Done
* Fee Concession to outstanding students in academics, cultural and sports	Done
* Use of ICT based learning	Done
* Extension talks by different experts held	Done
* Participation in Seminars/Workshops/Conferences by the faculty	Done

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

Name of the Statutory body:

Date of meeting(s):

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

Yes/No: **Yes, NBA**

Date: **12.10.2018 to 14.10.2018**

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

Year: **2017-2018**

Date of Submission: **14.02.2018**

17. Does the Institution have Management Information System?

Yes ✓

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

The major challenge with any institution is the timely availability of data for decision making purposes. To overcome this challenge, JCT has invested in an institution ERP which can be accessed both via intranet and internet. The ERP software is user friendly and comes with a lot of security features. This ERP tool has been implemented for the past two years and has helped in improving the productivity of the institution.

Many modules of the ERP software have been customized with specific inputs from JCT and a few are listed below.

### **Performance Module**

- Used to record all the activities of the departments with facility to upload all the supporting documents of the activities.
- Facility to capture the achievement of our faculty members like journal publications, patents filed participation in workshops etc.
- Feature to record performance of our students in co-curricular and extra-curricular activities.

### **Academic Module**

- To easily compute graduation pass percentage of each batch of students.
- To compute semester-wise pass percentage in the First<sup>t</sup> attempt and also the current pass percentage for all the semesters for each batch.
- To Compute mean CGPA of all successful students of every batch.
- To Generate list of students who have secured above a specified CGPA.

### **Billing Module**

- Automatic SMS of daily fee collection to the management.
- Reminder SMS to the fee defaulters.

### **Placement Module**

The complete module with the

- Database of potential recruiting companies,
- Database of students details
- Database of placed, non placed and not interested students
- Various comparison reports of placements with the previous years

## 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 description of this process involves preparation of academic calendar, Pedagogical initiatives, identification of Weak and Bright students, Classroom teaching, conduct of experiments, Continuous Assessment, Students feedback on Teaching Learning and action taken.

- At the beginning of every academic year/semester, the college brings out a calendar and issues them to the students which contains all the information required by a student to carry out his/her studies in the college.
- This calendar depicts the internal examination schedules, the tentative schedule of university examinations and various programmes to be conducted from the starting to the ending of each semester.
- All the planned co-curricular and extracurricular activities are scheduled in the academic calendar.
- New and junior faculty members are put through a series of ‘Induction Training’ sessions. These are handled by senior faculty and external resource persons.
- For the new faculty members, this will provide the generic instruction for content delivery and communication in class rooms and better interaction with students in laboratories.

Our college follows standard teaching methods. All theory and practical subjects are well mapped with Program Outcomes and Program Specific Outcomes.

The appropriate delivery methods are chosen to meet the outcomes for the theory and practical subjects. The generalized mapping is done for the course delivery methods to all the subjects.

**Classroom Lectures** - Class room teaching with chalk as a conventional method is followed on different topics in general.

**Real time Examples** - Previous or recent happenings relevant to topics taken by the faculty.

**Interactive classrooms**- Seminar presentation by Students on topics related to Curricular/Co-Curricular activities, Queries from students and discussion with staff.

**Quality in Laboratory experiments** - Availability of Quality Laboratory manual with Advanced/Design based experiments. Open ended experiment in Laboratory manual provides an opportunity for the students to conduct the experiments on their own.

**Collaborative learning** - PEER learning through Projects, Mini Projects, Assignments, and Association Activities by combining Bright and Weak students.

**Recording observations** – Tabulating experiment readings and carrying out calculations in observations and record notes of laboratories.

**Analysis of data** - Data analysis of conducted experiments, Projects(Review details) through Evaluation Sheets

**Encouraging bright students** - Improving the standard of Bright students by supplying quality teaching materials from faculty course files, recommendations of quality reference or text books, E-resources and Journals.

**Assisting weak students** - Assisting Weak students through remedial classes/Extra coaching classes, quality Handouts, practice in solving university questions, continuous monitoring of their improvements in tests.

**Video lectures** - Any PPT/video Lectures related to the curriculum or content beyond syllabus topics in any schedule of timetable.

**NPTEL related lectures** - NPTEL lectures related to the curriculum conducted for students.

**Assignments** - Giving Quality assignments to the students in groups.

<b>Tutorials</b> - Preparing Quality Tutorial sheets and Conducting effective tutorial classes for students.				
<b>Self-learning facility</b> - Digital library, Wi-Fi facilities, Department Library and College Library.				
<b>Co-curricular activities</b> - Conducting Workshops, Guest lectures, Short term courses.				
1.1.2 Certificate/ Diploma Courses introduced during the Academic year				
Name of the Certificate Course	Name of the Diploma Courses	Date of introduction and duration	Focus on employability/ Entrepreneurship	Skill development
<b>AUTOMOBILE ENGINEERING</b>				
Solid works	-	12-12-2017 (3 months)	Employability	Part modeling, assembling and drafting
<b>CIVIL ENGINEERING</b>				
AUTO CADD	-	10.07.2017 (15 Days)	Employability	-
<b>COMPUTER SCIENCE AND ENGINEERING</b>				
PHP & MySQL	-	24.11.2017 (1 week)	Employability	Web Design
Java	-	27.11.2017 (1 week)	Employability	Software Development
Software Testing	-	11.12.2018 (1 week)	Employability	Software Testing
<b>ELECTRONICS AND COMMUNICATION ENGINEERING</b>				
-	-	-	-	Aptitude & Communication
-	-	-	-	Quantitative Aptitude
<b>ELECTRICAL AND ELECTRONICS ENGINEERING</b>				
Industrial Automation Tools and Techniques	NA	07.03.2018 (One Day)	Employability	Automation
Auto CAD Electrical	NA	02.03.2018 (One Day)	Employability	Designing
Solar Energy	NA	15.02.2018 to 16.02.2018 (Two Day)	Entrepreneurship	Design and Fabrication Techniques
Internet of Things	NA	21.09.2017 to 22.09.2017 (Two Day)	Employability	Programming
<b>FOOD TECHNOLOGY</b>				
Chromatographic techniques	-	17.08.2017 (one day)	Employability	-
Hands on training on 'Bakery and Confectionary products'	-	28.08.2017 (one day)	Employability	-



<b>MECHANICAL ENGINEERING</b>				
Solid works	-	12-12-2017 (3 months)	Employability	Part modeling, assembling and drafting
<b>PETROCHEMICAL ENGINEERING</b>				
Piping Technology and Computational Fluid Dynamics	-	07.07.2017 & 08.07.2017 (Two days)	To enrich the student knowledge with computational fluid dynamics (CFD) for simulation of the process plant	Piping Technology and CFD
<b>PETROLEUM ENGINEERING</b>				
Online Certification Course (NPTEL)	-	July 2017 to Sep 2017	Employment	Practical knowledge
Automation Software(CAE)	-	December-2017 to January-2018	Employment	Software skills
<b>1.2 Academic Flexibility</b>				
1.2.1 New programmes/courses introduced during the Academic year				
<b>Program with Code</b>	<b>Date of Introduction</b>	<b>Course with Code</b>	<b>Date of Introduction</b>	
<b>AUTOMOBILE ENGINEERING</b>				
102 – Automobile Engineering	2017	GE8292 - Engineering Mechanics	2017	
<b>CIVIL ENGINEERING</b>				
103 – Civil Engineering	2017	PH8201- Physics For Civil Engineering	2017	
		GE8291- Environmental Science and Engineering	2017	
		CE8211 - Computer Aided Building Drawing	2017	
<b>COMPUTER SCIENCE AND ENGINEERING</b>				
104 - Computer Science and Engineering	2017	GE8151 -Problem Solving and Python Programming Laboratory	2017	
		CS8251 - Programming in C	2017	
		CS8261 - C Programming Laboratory	2017	
<b>ELECTRONICS AND COMMUNICATION ENGINEERING</b>				
106 - Electronics and	2017	BE8254 - Basic Electrical and Instrumentation Engineering	2017	

Communication Engineering		EC8251 -Circuit Analysis	2017		
		EC8252 -Electronic Devices	2017		
<b>ELECTRICAL AND ELECTRONICS ENGINEERING</b>					
105 - Electrical and Electronics Engineering	2017	EE8251- Circuit Theory	2017		
<b>FOOD TECHNOLOGY</b>					
218 - Food Technology	2017	BT8291- Microbiology	2017		
		FD8201 - Biochemistry	2017		
		BT 8261 –Biochemistry Lab	2017		
		FD 8412 –Unit Operations Laboratory	2017		
<b>MECHANICAL ENGINEERING</b>					
114 - Mechanical Engineering	2017	GE8292- Engineering Mechanics	2017		
<b>PETROCHEMICAL ENGINEERING</b>					
139 - Petrochemical Engineering	2017	CY8292 - Chemistry for Technologists	2017		
		CY8291 - Organic Chemistry	2017		
		BE8256 Basic Mechanical Engineering	2017		
		PM8251- Industrial Chemical Technology	2017		
		PM8452 - Petroleum Primary Processing Technology	2017		
<b>PETROLEUM ENGINEERING</b>					
219 - Petroleum Engineering	2017	PE-6010 -Well completion and Simulation	2017		
		BE8256 - Basic Mechanical Engineering	2017		
		PE8201 - Introduction to Petroleum Engineering	2017		
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.					
<b>Name of Programmes adopting CBCS</b>	<b>UG</b>	<b>PG</b>	<b>Date of implementation of CBCS / Elective Course System</b>	<b>UG</b>	<b>PG</b>
<b>AUTOMOBILE ENGINEERING</b>					
B.E. Automobile Engineering	<b>Elective – I</b> Alternative Fuels and Energy System	-	July 2017	July 2017	July 2017
	<b>Elective – II</b>	-			

	Robotics				
	<b>Elective – III</b> Off Road Vehicles	-			
	<b>Elective – IV</b> Total Quality Management	-			
<b>CIVIL ENGINEERING</b>					
B.E. Civil Engineering & M.E. Structural Engineering	<b>Elective – I</b> Concrete Technology	<b>Elective – I</b> Maintenance and Rehabilitation of structures	July 2017	July 2017	July 2017
	<b>Elective – II</b> Housing Planning and Management	<b>Elective – II</b> Prefabricated Structures			
	<b>Elective – III</b> Municipal Solid Waste Management	<b>Elective – III</b> Industrial Structures			
	<b>Elective – IV</b> Prefabricated Structures	<b>Elective – IV</b> Pre stressed Concrete			
	<b>Elective – V</b> Repair and Rehabilitation of Structures	<b>Elective – V</b> Design of Sub structures			
	-	<b>Elective – VI</b> Design of Bridges			
<b>COMPUTER SCIENCE AND ENGINEERING</b>					
B.E. Computer Science and Engineering	<b>Elective – I</b> Total Quality Management	-	July 2017	July 2017	July 2017
	<b>Elective – II</b> Ad hoc and Sensor Networks	-			
	<b>Elective – III</b> Information Retrieval	-			
	<b>Elective – IV</b> Knowledge Management	-			
	<b>Elective – V</b> Software Project Management	-			
<b>ELECTRONICS AND COMMUNICATION ENGINEERING</b>					
B.E. Electronics and Communication Engineering & M.E. VLSI	<b>Elective – I</b> Medical Electronics	<b>Elective – I</b> Device Modeling - I	July 2017	July 2017	July 2017
	<b>Elective – II</b> Satellite Communication	<b>Elective – II</b> Signal Integrity for High Speed			

		Networks			
	<b>Elective – III</b> Speech Processing	<b>Elective – III</b> 1.Embedded System Design 2. Signal Integrity for High Speed Devices			
	<b>Elective – IV</b> CMOS Analog IC Design	<b>Elective – IV</b> Data Converters			
	<b>Elective – V</b> Professional Ethics in Engineering	-			
	<b>Elective – VI</b> Total Quality Management	-			
<b>ELECTRICAL AND ELECTRONICS ENGINEERING</b>					
B.E. Electrical and Electronics Engineering & M.E. Power Electronics and Drives	<b>Elective – I</b> Power System Transients	<b>Elective – I</b> Soft Computing Techniques	July 2017	July 2017	July 2017
	<b>Elective – II</b> Power Quality	<b>Elective – II</b> Flexible AC Transmission Systems			
	<b>Elective – III</b> Micro Electro Mechanical Systems	<b>Elective – III</b> MEMS Technology			
	<b>Elective – IV</b> High Voltage Direct Current Transmission	<b>Elective – IV</b> High Voltage Direct Current Transmission	July 2017	July 2017	July 2017
	<b>Elective – V</b> Total Quality Management	<b>Elective – V</b> Application of MEMS Technology			
<b>FOOD TECHNOLOGY</b>					
B.TECH. Food Technology	<b>Elective – I</b> Biology and Chemistry of Food Flavours	-	July 2017	July 2017	July 2017
	<b>Elective – II</b> Food Packaging	-			
<b>MECHANICAL ENGINEERING</b>					
B.E. Mechanical Engineering & M.E. Engineering Design	<b>Elective – I</b> Unconventional Machining Processes	<b>Elective – I</b> 1.Design of Material Handling Equipments	July 2017	July 2017	July 2017
	<b>Elective – II</b>	<b>Elective – II</b>			

	Welding Technology	Optimization Techniques in Design			
	<b>Elective – III</b> Maintenance Engineering	<b>Elective – III</b> Advanced Metal Forming Techniques			
	<b>Elective – IV</b> Production Planning and Control	<b>Elective – IV</b> Surface Engineering			
	<b>Elective – V</b> 1.Advanced I.C. Engines 2. Additive Manufacturing	<b>Elective – V</b> Design for Manufacture Assembly and Environments			
	-	<b>Elective – VI</b> Design of Hydraulic and Pneumatic Systems			
<b>PETROCHEMICAL ENGINEERING</b>					
B.E. Petrochemical Engineering	<b>Elective – I</b> Fertilizer Technology	-	July 2017	July 2017	July 2017
	<b>Elective – II</b> Energy Management in Chemical Industries	-			
<b>PETROLEUM ENGINEERING</b>					
B.Tech Petroleum Engineering	<b>Elective – I</b> Major Hazards Management	-	July 2017	July 2017	July 2017
	<b>Elective – II</b> Well Completion and simulation	-			
	<b>Elective – III</b> Total Quality Management	-			
Already adopted (mention the year)					
1.2.3 Students enrolled in Certificate/ Diploma Courses introduced during the year					
		<b>Certificate</b>	<b>Diploma Courses</b>		
<b>AUTOMOBILE ENGINEERING</b>					
No of Students		<b>20</b>	<b>01</b>		
<b>CIVIL ENGINEERING</b>					
No of Students		<b>28</b>	<b>-</b>		
<b>COMPUTER SCIENCE AND ENGINEERING</b>					
No of Students		<b>40</b>	<b>-</b>		
<b>ELECTRONICS AND COMMUNICATION ENGINEERING</b>					

No of Students	<b>01</b>	-
<b>ELECTRICAL AND ELECTRONICS ENGINEERING</b>		
No of Students	<b>191</b>	-
<b>FOOD TECHNOLOGY</b>		
No of Students	<b>100</b>	-
<b>MECHANICAL ENGINEERING</b>		
No of Students	<b>61</b>	-
<b>PETROCHEMICAL ENGINEERING</b>		
No of Students	<b>23</b>	-
<b>PETROLEUM ENGINEERING</b>		
No of Students	<b>02</b>	-
<b>1.3 Curriculum Enrichment</b>		
1.3.1 Value-added courses imparting transferable and life skills offered during the year		
<b>Value added courses</b>	<b>Date of introduction</b>	<b>Number of students enrolled</b>
<b>AUTOMOBILE ENGINEERING</b>		
Hands on training on 'Automotive Components'	17.08.2017	69
<b>CIVIL ENGINEERING</b>		
AUTO CAD	20.09.2017	06
<b>COMPUTER SCIENCE AND ENGINEERING</b>		
Mobile Application Development	11.12.18	20
<b>ELECTRONICS AND COMMUNICATION ENGINEERING</b>		
Embedded system using Arduino	21.08.2017	26
IOT using Arduino	28.08.2017	20
PCB design	18.09.2017	35
<b>ELECTRICAL AND ELECTRONICS ENGINEERING</b>		
P-SPICE	07.08.2017 to 11.08.2017	40
Low Power VLSI with Lifting Algorithm	19.02.2018 to 23.02.2018	40
<b>FOOD TECHNOLOGY</b>		
Online certification course (NPTEL)	12.07.2017	30
Online certification course (NPTEL)	12.12.2017	25
Certificate in food safety	17.07.2017	20
Certificate in food and nutrition	28.12.2017	25
<b>MECHANICAL ENGINEERING</b>		
Hands on training on Automotive Components	17.08.2017	105
<b>PETROCHEMICAL ENGINEERING</b>		
ProSim-Simulation	03.01.2017	45
<b>PETROLEUM ENGINEERING</b>		
Oil and gas industrial automation(SCADA, PLC)	22.08.2017	60
Oil field trends in petroleum production	28.12.2017	40
1.3.2 Field Projects / Internships under taken during the year		
<b>Project/Programme Title</b>	<b>No. of students enrolled for Field Projects / Internships</b>	

<b>AUTOMOBILE ENGINEERING</b>	
Fabrication of self charging E-Bike	04
Active Cell phone Detector aided in Vehicle	04
<b>CIVIL ENGINEERING</b>	
Villas & Apartment Construction	04
Residential Building Construction	04
<b>COMPUTER SCIENCE AND ENGINEERING</b>	
Wild Boar Repellent	1
<b>ELECTRONICS AND COMMUNICATION ENGINEERING</b>	
Smart Irrigation System using IOT	02
<b>ELECTRICAL AND ELECTRONICS ENGINEERING</b>	
Fire Fighting Robot using Virtual Reliability	04
Electronic Product Development	04
<b>FOOD TECHNOLOGY</b>	
Extraction and incorporation of coriander leaves oil with cooking oil	04
Implementation of HACCP in rice processing industry	04
Fortification of meat flakes with omega-3 fatty acids and blue berry	04
Development of omega-3 fatty acid enriched yogurt	04
<b>MECHANICAL ENGINEERING</b>	
Solar pond performance analysis	04
Fabrication of four wheeler factory vehicle using air compressor	04
<b>PETROCHEMICAL ENGINEERING</b>	
Desulfurization of crude oil using dolochar, a waste material of iron sponge industry	03
Extraction of phenol from mixed vegetables	03
Production on enhancement of propylene glycol	03
Effective utilization for egg shell of production of acetone and paper	03
Industrial safety from hazards chemical	03
Synthesis and characterization of TiO <sub>2</sub> , ZnO and Fe <sub>2</sub> O <sub>3</sub> Nano particles	03
Experimental studies on activated charcoal production from coal	03
DLF production from mixed water stream of WCO and Bio oil	02
Extraction of keratin from bio waste (Hybrid)	03
Thermal performance of plate type HE using non-newtonian fluids	03
Adsorption of pollutant from aqueous solution onto oxidation carbon	03

Hydrogen Recovery from MEK	03			
Enhancement of thermal performance in plate type HE using non-newtonian fluids	02			
Analysis of acid regeneration plant for production of titanium dioxide	02			
Production and optimisation of bio-diesel from waste bio mass	03			
Design and Cost optimization of Plate heat exchanger	03			
Textile effluent treatment by coagulation	02			
Engrossment of contaminant by using synthesis carbon	03			
<b>PETROLEUM ENGINEERING</b>				
Final year Project work in Industry	45 students in Field Project works/23 students Internship			
<b>1.4 Feedback System</b>				
1.4.1 Whether structured feedback received from all the stakeholders.				
<b>1) Students</b>	<b>2) Teachers</b>	<b>3) Employers</b>	<b>4) Alumni</b>	<b>5) Parents</b>
Yes/ No	Yes/ No	Yes/ No	Yes/ No	Yes/ No
1.4.2 How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)				
<p>The institution collects the feedback on curriculum aspects and courses from different stakeholders such as the students, alumni, Faculty and Industry Personnel. Institution has constituted an Academic Council to ensure and analyze the academic excellence at student and faculty levels. Periodical analysis is made by Academic Council in the following areas:</p> <ul style="list-style-type: none"> <li>• Student's performance.</li> <li>• Faculty performance.</li> <li>• Utilization of infrastructure</li> <li>• Additional requirements for enrichment of quality.</li> </ul> <p>JCT College of Engineering and technology, thoroughly reviews the curriculum for every academic year. The college maintains an IQAC as a quality consistence and quality enhancement measure. In supervision of IQAC, various departments and committees like Career Guidance, Anti-Ragging, etc reinforce the curriculum by incorporating updated information and social issues on a day to day basis.</p> <p>Our institute collects the feedback physically from stockholders viz. Students, Parents and Teachers on Curriculum which is prescribed by the university. Further, our college website invites the stakeholder to provide feedback through online.</p> <p>The college conducts annual Alumni Meet, in which suggestions and feedback is received from Alumni. Feedback from management of industries, R &amp; D establishments and professionals is obtained through college website's feedback blog. The feedback data so received is presented to the Academic Council Meeting for necessary action.</p> <ul style="list-style-type: none"> <li>• Alumni surveys are conducted during alumni interaction at the alumni association meeting held every year.</li> <li>• Whenever any alumni visit the college, his/her feedback is obtained.</li> <li>• Further, college website (i.e., www.jct.ac.in) invites alumni to provide feedback through</li> </ul>				



online.

- Feedback from industry, R & D establishments, and professional bodies also are obtained.

<b>CRITERION II -TEACHING-LEARNING AND EVALUATION</b>						
<b>2.1 Student Enrolment and Profile</b>						
<b>2.1.1 Demand Ratio during the year</b>						
Name of the Programme		Number of seats available	Number of applications received	Students Enrolled		
<b>Under Graduate Programmes:</b>						
B.E Automobile Engineering		60	50	46		
B.E Civil Engineering		60	40	33		
B.E Computer Science and Engineering		60	52	47		
B.E Electronics and Communication and Engineering		60	49	35		
B.E Electrical and Electronics Engineering		60	30	30		
B.TechFood Technology		60	60	58		
B.E Mechanical Engineering		120	123	117		
B.E Petrochemical Engineering		120	120	119		
B.TechPetroleum Engineering		60	60	54		
<b>Post Graduate Programmes:</b>						
M.E Engineering Design		18	-	-		
M.E Structural Engineering		18	16	14		
M.E Power Electronics and Drives		18	4	3		
M.E VLSI Design		18	5	4		
<b>2.2 Catering to Student Diversity</b>						
<b>2.2.1. Student - Full time teacher ratio (current year data)</b>						
Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of full time teachers available in the institution teaching only UG courses	Number of full time teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses	
2017-2018	1946	21	132	12	144	
<b>2.3 Teaching - Learning Process</b>						
<b>2.3.1 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)</b>						
Number of teachers on roll	Number of teachers using ICT ( <i>LMS, e-Resources</i> )	ICT tools and resources available	Number of ICT enabled classrooms	Number of smart classrooms	E-resources and techniques used	

144	144	Jlektz ERP JGate Delnet	20	9	1) NPTEL 2) ICT- Indian Concrete Institute 3) MT Research and Educational services 4) ERP Jlektz 5) Society for Petroleum Engineers Indian Institute of Chemistry Engineers
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**2.3.2 Students mentoring system available in the institution? Give details. (maximum 500 words)**

\* Mentoring is a relationship in which a more experienced or more knowledgeable person helps to guide a less experienced or less knowledgeable person.

\* Mentoring is important not only because of the knowledge and skills one can learn from his/her mentors but also it provides professional socialization and personal support to facilitate success in graduate.

\* The following duties are performed by the mentors:

1. Personal and Academic related counselling
2. Improve communication and personal skills
3. Develop leadership and management qualities
4. Reinforce their own study skills and knowledge of their subjects
5. Increase confidence and motivation
6. Engage in a volunteering opportunity, valued by employers
7. One to one relationship
8. Setting a contact schedule and goals mutually
9. Listen with understanding and without prejudice
10. Summarize details into few key points
11. Use stories as a launching pad, rather than the focus of the discussion.
12. Be accountable to each other.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor: Mentee Ratio
1967	144	1:15

<b>2.4 Teacher Profile and Quality</b>				
<b>2.4.1 Number of full time teachers appointed during the year</b>				
No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
144	144	0	30	23
<b>2.4.2 Honours and recognitions received by teachers</b> (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year )				
Year of award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies	
2017-2018	K.SivakumarAP / CSE	Assistant Professor	Innovative Technologist and Dedicated Teaching Professional Award organized by ISRP Malaysia	
	C.Sakthivel, AP / EEE	Assistant Professor	Innovative Research and Teaching Professional Award from Society of Innovative Educational and Scientific Research Professional, Malaysia	
<b>2.5 Evaluation Process and Reforms</b>				
<b>2.5.1 Number of days from the date of semester-end/ year- end examination till the declaration of results during the year</b>				
Programme 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.E. AUTOMOBILE ENGINEERING	102	Semester	Odd Semester Last Examination Date : <b>24/11/2017</b> Even Semester Last Examination Date : <b>18/05/2018</b>	Date of Declaration of Odd semester results: <b>29/12/2017</b> Date of Declaration of Even semester results: <b>29/06/2018</b>
B.E. CIVIL ENGINEERING	103	Semester	Odd Semester Last Examination Date : <b>24/11/2017</b> Even Semester Last Examination Date : <b>18/05/2018</b>	Date of Declaration of Odd semester result: <b>29/12/2017</b> Date of Declaration of Even semester result: <b>29/06/2018</b>
B.E.	104	Semester	Odd Semester Last	

COMPUTER SCIENCE AND ENGINEERING			Examination Date : <b>24/11/2017</b> Even Semester Last Examination Date : <b>18/05/2018</b>	Date of Declaration of Odd semester result: <b>29/12/2017</b> Date of Declaration of Even semester result: <b>29/06/2018</b>
B.E. ELECTRICAL AND ELECTRONICS ENGINEERING	105	Semester	Odd Semester Last Examination Date : <b>24/11/2017</b> Even Semester Last Examination Date : <b>18/05/2018</b>	Date of Declaration of Odd semester result: <b>29/12/2017</b> Date of Declaration of Even semester result: <b>29/06/2018</b>
B.E. ELECTRONICS AND COMMUNICATION ENGINEERING	106	Semester	Odd Semester Last Examination Date : <b>24/11/2017</b> Even Semester Last Examination Date : <b>18/05/2018</b>	Date of Declaration of Odd semester result: <b>29/12/2017</b> Date of Declaration of Even semester result: <b>29/06/2018</b>
B.E. MECHANICAL ENGINEERING	114	Semester	Odd Semester Last Examination Date : <b>24/11/2017</b> Even Semester Last Examination Date : <b>18/05/2018</b>	Date of Declaration of Odd semester result: <b>29/12/2017</b> Date of Declaration of Even semester result: <b>29/06/2018</b>
B.E. PETRO CHEMICAL ENGINEERING	139	Semester	Odd Semester Last Examination Date : <b>30/11/2017</b> Even Semester Last Examination Date : <b>31/05/2018</b>	Date of Declaration of Odd semester result: <b>29/12/2017</b> Date of Declaration of Even semester result: <b>29/06/2018</b>
B.TECH. FOOD TECHNOLOGY	218	Semester	Odd Semester Last Examination Date : <b>24/11/2017</b> Even Semester Last Examination Date : <b>18/05/18</b>	Date of Declaration of Odd semester result: <b>29/12/2017</b> Date of Declaration of Even semester result: <b>29/06/2018</b>
B.TECH. PETROLEUM ENGINEERING	219	Semester	Odd Semester Last Examination Date : <b>24/11/2017</b> Even Semester Last Examination Date : <b>29/05/2018</b>	Date of Declaration of Odd semester result: <b>29/12/2017</b> Date of Declaration of Even semester result: <b>29/06/2018</b>
M.E. ENGINEERING DESIGN	408	Semester	Odd Semester Last Examination Date : <b>12/01/2018</b> Even Semester Last Examination Date : <b>30/05/2018</b>	Date of Declaration of Odd semester result: <b>05/02/2018</b> Date of Declaration of Even semester result: <b>29/06/2018</b>
M.E.	413	Semester	Odd Semester Last	Date of Declaration of Odd

STRUCTURAL ENGINEERING			Examination Date : <b>12/01/2018</b> Even Semester Last Examination Date : <b>30/05/2018</b>	semester result: <b>05/02/2018</b> Date of Declaration of Even semester result: <b>29/06/2018</b>
M.E. VERY LARGE SCALE INTEGRATION	419	Semester	Odd Semester Last Examination Date : <b>12/01/2018</b> Even Semester Last Examination Date : <b>30/05/2018</b>	Date of Declaration of Odd semester result: <b>05/02/2018</b> Date of Declaration of Even semester result: <b>29/06/2018</b>
M.E. POWER ELECTRONICS AND DRIVES	415	Semester	Odd Semester Last Examination Date : <b>12/01/2018</b> Even Semester Last Examination Date : <b>30/05/2018</b>	Date of Declaration of Odd semester result : <b>05/02/2018</b> Date of Declaration of Even semester result : <b>29/06/2018</b>

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

- All the Departments are conducting 3(Three) Continuous Internal Assessment(CIA) tests in each semester to evaluate students' performance.
- The Question Paper setting for these 3 CIAs is based on Blooms Taxonomy.
- The Questions are prepared based on 6(Six) levels of Blooms Taxonomy viz. 1) Remembering 2) Understanding 3) Applying 4) Analyzing 5) Evaluating and 6) Creating.
- Answer Key is prepared for the CIA Questions. Based on this answer key, Evaluation is done.
- The answer scripts should be evaluated and circulated to the students by the subject handling faculty member within 3(Three) Days after their subject examination is over.
- The result analysis based on subject-wise and class-wise should be submitted by the respective subject handling faculty and Class Advisor to the Principal within 2(Two) days after completing all the internal tests.
- Letters are sent to all the parents about their wards academic performance and attendance during that period.
- End Semester Internal Mark is calculated based on the basis of Best of Two.

**2.5.3 Academic calendar prepared and adhered for conduct of Examination and other related**

**matters (250 words)**

- In order to carry out effective implementation of the academic curriculum, Academic calendar is prepared with all necessary information about the college, rules and regulations, working days, specific holidays and various upcoming events.

**Academic Calendar:** Semester-wise academic calendars are prepared well in advance and communicated to the students by each department after being approved by the HoD which includes the following details:

- **List of working days:** College working days and holidays are mentioned.
- **Internal Test schedule:** The internal test schedule is prepared by the Controller of Examinations (CoE) based on the schedule suggested by the university and circulated to all the departments. Schedule for internal examination is followed and uploaded in the Anna University web portal.
- **Class committee meetings:** The tentative schedule of the Class Committee Meetings for all the classes is mentioned. This is to enable the students to express the difficulties faced by them in the class rooms and in laboratories.
- **Tentative semester examination schedule:** The tentative schedule for semester practical and theory examinations are provided by Anna University is also specified.

**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)**

<http://www.jct.ac.in/departments/automobile-engineering/>  
<http://www.jct.ac.in/departments/civil-engineering/>  
<http://www.jct.ac.in/departments/computer-science-engineering/>  
<http://www.jct.ac.in/departments/electronics-and-communication/>  
<http://www.jct.ac.in/departments/electrical-and-electronics/>  
<http://www.jct.ac.in/departments/food-technology/>  
<http://www.jct.ac.in/departments/mechanical-engineering/>  
<http://www.jct.ac.in/departments/petrochemical-engineering/>  
<http://www.jct.ac.in/departments/petroleum-engineering/>  
<http://www.jct.ac.in/departments/science-and-humanities/>

**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
101	B.E. AUTOMOBILE ENGINEERING	33	12	36.36%

103	B.E. CIVIL ENGINEERING	37	13	35%
104	B.E. COMPUTER SCIENCE AND ENGINEERING	29	21	72.41%
105	B.E. ELECTRICAL AND ELECTRONICS ENGINEERING	31	13	41.94 %
106	B.E. ELECTRONICS AND COMMUNICATION ENGINEERING	26	15	57.7%
114	B.E. MECHANICAL ENGINEERING	101	50	50%
139	B.E. PETRO CHEMICAL ENGINEERING	122	103	84.42%
218	B.TECH. FOOD TECHNOLOGY	35	34	97%
219	B.TECH. PETROLEUM ENGINEERING	65	31	47.69%
413	M.E. ENGINEERING DESIGN	8	8	100%
418	M.E. STRUCTURAL ENGINEERING	14	14	100%
419	M.E. VERY LARGE SCALE INTEGRATION	4	4	100%
415	M.E. POWER ELECTRONICS AND DRIVES	06	06	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 web link)

<http://www.jct.ac.in/wp-content/uploads/2018/12/Overall-Rating-of-the-Institutional-Performance.pdf>



### 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 Academic year
Major projects	3 years	JCT Institutions Coimbatore	Rs.2,00,000	Rs. 85,000
Minor Projects	1 Year	JCT Institutions Coimbatore	Rs. 5,000	Rs. 5,000
	6 Months	Coimbatore Pump Engineering	Rs. 54,000	Rs. 10,000
Interdisciplinary Projects	-	-	-	-
Industry sponsored Projects	4 Months	Panamon Technologies Pvt.Ltd., Chennai.	Rs.10,000	Rs.10,000
	1 Month	IPCS Automation, Coimbatore	Rs.10,000	Rs.10,000
	4 months	Parle Agro Private Limited,Mumbai	Rs 20,000	Rs 20,000
Projects sponsored by the University/ College	4 Months	JCT Institutions, Coimbatore	Rs.40,000	Rs.40,000
	6 Months	JCT Institutions, Coimbatore	Rs50,000	Rs50,000
	2 Months	JCT Institutions, Coimbatore	Rs.15,000	Rs.15,000
	1 Year	JCT Institutions, Coimbatore	Rs. 15,000	Rs. 15,000
Students Research Projects (other than compulsory by the college)	6 months	JCT Institutions, Coimbatore	5000	5000
International Projects	5 Months	ACS ,USA	USD 10,000/-	Ongoing
Any other(Specify)	-	-	-	-
Total			Rs. 4,24,000	Rs. 2,65,000

### 3.2 Innovation Ecosystem

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

Title of Workshop/Seminar	Name of the Dept.	Date(s)
Workshop on 'Vehicle Dynamics'	Automobile Engineering	15.03.2018
Workshop on 'Construction, demolition waste, M-sand and In-active Industry wastes management and its Engineering Applications'	Civil Engineering	12.02.2018
Workshop on 'Repairs and Rehabilitation of Buildings and Green Building Concepts;		20.02.2018
Workshop on 'Mobile Application Development'	Computer Science and Engineering	09.03.2018 & 10.03.2018
Seminar on 'Big Data Technologies'		06.03. 2018
Seminar on 'Cyber Security and its issues'		28.08. 2017
Seminar on 'Preparation for GATE Exam'		23.08. 2017
Motivational & Technical Talk on 'Startup for Freshers'		22.08. 2017
Seminar on 'Advanced Technology in Solar System'	Electrical and Electronics Engineering	09.03.2018
Workshop on 'Industrial Automation Tools and Techniques'		07.03.2018
Workshop on 'Auto CAD Electrical'		02.03.2018
Industrial Workshop on 'Solar Energy'		15.02.2018 to 16.02.2018
Workshop on 'Internet of Things'		21.09.2017 to 22.09.2017
Industrial Automation Tools and Techniques	Electronics and Communication Engineering	07.03.2018
Electronic Circuits Design using LTspice Tool		28.02.2018
Embedded Systems Using Raspberry Pi		23.02. 2018
PCB Design		15.02.2018
MATLAB in Signal Processing		22.12.2017
Smart Phone Services		04.10. 2017
Internet of things (IoT)		12.08.2017
VLSI Implementation of DIP		26.08.2012
Dhruvaz	Mechanical Engineering	22.02.2018

Hands on Training on ' Pilot Plant Distillation Unit'	Petrochemical Engineering	08.12.2017
Nutro 2018	Food Tech	23.03.2018
SCADA,PLC	Petroleum Engineering	22.08.2017 to 23.08.2017

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

Title of the innovation	Name of the Awardee	Awarding Agency	Date of Award	Category
Investigation on mechanical properties of Bacillus Subtilis bacterial concrete reinforced with Polypropylene fibers	Dr.A.Thirumurugan, Professor/Civil	JCTCET Award Committee	10.04.2018	-
Experimental investigation on Polyethelerephtalate (PET) bottle fibre concrete	Mr.V.Muruges, Associate Professor/Civil	JCTCET Award Committee	10.04.2018	-
Innovative Scientific Research Professional Malaysia	Mr. K. Sivakumar, Assistant Professor (Sr.G)/CSE	Innovative Technologist & Dedicated Teaching Professional(Computer Science and Engineering) Award	25.03.2018	Innovative Scientific Research Professional Malaysia
Renewable Energy - Solar Pond	Bijesh Nair	SNS College of Engineering, Coimbatore	07.09.2017	-
Enhancement of Co-Solvent Transesterification Process Using Reactive Distillation	A Fakkurudeen Ali Ahamed & Hariprasad V P	TNSCST	27.01.2018	Innovative Research
Innovative research and Teaching professional award	Mr.C.Sakthivel, Assistant Professor /EEE	Society of innovative Educational and Scientific Research Professional, Malaysia	25.03.2018	Educational and Scientific Research

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

Incubation Centre	Name	Sponsored By
1	Production of DLF	JCT Management
2	IPCS Automation	
Name of the Start-up	Nature of Start-up	Date of Commencement
Automobile Testing	Emission Testing centre	20.01.2018
Innovative Projects and Research Centre	Manufacturing and Consulting (Planning, Drafting, Designing, Estimating and Testing)	03.03.2018
Softronics	Computer Sales and Service	26.07.2017
Messers Incubation centre	Virtual Cutting	March 2018
Production of diesel like fuel from mixed waste stream of Waste lubricating Oil Used cooking Oil and Bio Oil Using Reactive Distillation	Alternate Fuel	29.03.2018
Innovative Projects and Research Centre	Reservoir Simulation Software laboratory	

### 3.3. Research Publications and Awards

#### 3.3.1 Incentive to the teachers who receive recognition/Awards

State	National	International
4	5	100

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

Name of the Department	No. of Ph. Ds Awarded
Department of Automobile Engineering	Nil
Department of Civil Engineering	Nil
Department of Computer Science and Engineering	Nil

Department of Electronics and Communication Engineering	Nil
Department of Electrical and Electronics Engineering	Nil
Department of Mechanical Engineering	01
Department of Food Technology	Nil
Department of Petro Chemical Engineering	Nil
Department of Petroleum Engineering	Nil
Department of Science and Humanities	Nil

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

<b>National / International</b>	<b>Department</b>	<b>No. of Publication</b>	<b>Average Impact Factor, if any</b>
National	Department of Automobile Engineering	Nil	Nil
International		17	-
National	Department of Civil Engineering	Nil	Nil
International		17	4.8
National	Department of Computer Science and Engineering	Nil	Nil
International		27	2.5
National	Department of Electronics and Communication Engineering	Nil	Nil
International		3	1
National	Department of Electrical and Electronics Engineering	Nil	Nil
International		52	1.15
National	Department of Mechanical Engineering	2	1.86
International		1	0.58
National	Department of Food Technology	Nil	Nil
International		4	6.54
National	Department of Petro Chemical Engineering	Nil	Nil
International		2	7.1
National	Department of Petroleum Engineering	2	7
International		Nil	Nil
National	Department of Science and Humanities	Nil	Nil

International		8	1.6
Total		135	--

**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 publications
Department of Civil Engineering	4
Department of Computer Science and Engineering	30
Department of Electrical and Electronics Engineering	59
Department of Mechanical Engineering	1
Department of Petro Chemical Engineering	3
Department of Food Technology	6
Department of Petroleum Engineering	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
Queing Based Load Balancing Approach For Improving Network Performance In Manet	G.Rajiv Sureshkumar	International Journal Of Inventions In Computer Science And Engineering	2014	3	-	3

Map reduce based high performance clustering on large scale dataset using parallel data processing	G.Rajiv Sureshkumar	Data Mining and Knowledge Engineering	2014	2	-	2
Vampire Attack: Detection and elimination in WSN	Mr.Biju bala Krishnan	International Journal of Scientific Research	2014	6	-	6
N-Dimensional quadrature frequency shift keying	Mr.Biju bala Krishnan	ICCPEIC Publisher :IEEE	2017	4	-	4
Performance Analysis of Clustering-Based Topology Generation and disable nodes for NoC	Mr.A.Kalimuthu	International Journal of Computer Sciences and Engineering	2018	2	-	-
Low Power Network-on-Chip Virtual Channel Router Architecture	Mr.A.Kalimuthu	International Journal of Scientific Research and Review	2018	2	-	-
Improve the performance and low power of NoC based Router architecture with error detection and Correction using DMC	Mr.A.Kalimuthu	International Journal of Imaging Science and Engineering	2017	2	-	-
NOC Based Router Architecture Design Through Decoupled Resource Sharing Using CABHR Algorithm	Mr.A.Kalimuthu	International Journal of Reconfigurable and Embedded Systems	2017	2	-	-
Efficient Design of Error Recovery and Improve the Performance Using Mesh of Ring Topology Based NoC	Mr.A.Kalimuthu	International Journal of Advanced Engineering Research and Science	2017	2	-	-
Automatic Segmentation of lesion from breast DCE-MR image using artificial fish swarm optimization algorithm	Dr.K. Geetha	Polish journal of Medical Physics and Engineering	2017	2	NIL	2

New particle swarm optimization for feature selection and classification of micro calcifications in mammograms	Dr.K. Geetha	Signal Processing, Communications and Networking	2009	1	NIL	1
Partial Swarm Optimization for Segmentation of Micro calcifications in Mammograms	Dr.K. Geetha	Polish journal of Medical physics and Engineering	2006	2	NIL	2
Analysis of non isolated multiport single ended primary converter for standalone applications ”	C.Sakthivel	International Journal of Energies	2018	1	NIL	1
Fixed bed adsorption of atrazine onto microwave irradiated asglemartmeloscorreas hell:staisticaloptimizati on,process design and breakthrough modelling	K.Balasubramani	Journal of Molecular liquiids	2017	-	1	-
Use of Corn Cop as low cost adsorbent for removal of Nickal (II) from aqueous Solution	R Perumal	International Journal Advanced Biotechnology and Research	2014	8	-	8
A Batch study on removal of Nickal (II) using low cost flyash	R Perumal	International Journal of Chemical & Petrochemical Technology	2014	2	-	2
Disolution kinetics of cerium from red mud	G.Surendran	Separation Science and Technology	2017	1	-	1
Studies in additive grinding of minerals	R.Paramasivam	Advanced Powder Technology	1992	4	-	4
Effect of physical properties of liquid additives on dry grinding	R.Paramasivam	Powder Technology	1992	26	-	26
Effect of fatty acid additives on the material flow properties of dry grinding	R.Paramasivam	Powder Technolgy	1993	10	-	10
Effect of grinding aids			1999	21	-	21



on the time-flow characteristics of the ground product from a batch ball mill,	R.Paramasivam	Powder Technology				
Analysis of the influence of grinding aids on the breakage process of calcite in media mills,	R.Paramasivam	Advanced Powder Technology	1999	11	-	11
Morphology and Electrochemical Properties of P(VdF-HFP)/MgO-Based Composite Microporous Polymer Electrolytes for Li-Ion Polymer Batteries	R.Paramasivam	Polymer - Plastics Technology and Engineering	2012	16	-	16
Shrinkage and porosity effects on heat and mass transfer during potato drying	Gopirajah R	Journal of FOOD Engineering 144, 119-128	2015	39	-	-
The glycemic response to fibre rich FOODs and their relationship with gastric emptying and motor functions: an MRI study	Gopirajah R	FOOD & function 7 (9), 3964-3972	2016	8	-	-
Advancement of imaging and modeling techniques for understanding gastric physical forces on FOOD	Gopirajah R	FOOD engineering reviews 8 (3), 323-335	-	--	-	-
Methods integrating physical mechanisms underlying the FOOD digestion and release of nutrients in human stomach	Gopirajah R	J NutrNutrEpidemiol 1, 1-13	-	-	-	-
Effect of extrusion process conditions on the physical properties of tef- oat healthy snack extrudates	Gopirajah R	Journal of FOOD Processing and Preservation 42 (3), e13559	-	-	-	-
Computational modeling of dehydration of mushroom	Gopirajah R	MOJ FOOD Processing & Technology 6 (3), 264-270	-	-	-	-

Effect of salinity & Iron stressed on Growth & Lipid Accumulation in SkletonemaCostatum for Biodiesel production	SasiReka. G	Research Journal of Chemical Sciences, 15 (5), 69-72	2015	3	-	-
A Comparative Study of Biomass and Lipid Accumulation in Dunaliella Salina and Chlorella Vulgaris Under Different Nitrogen Sources for Biodiesel Production.’	SasiReka. G	International Journal of Engineering Science and Research (IJESR), 4(2).	2016	-	-	-
Biomass Production and GC-MS Analysis of Selenastrumbibraianu mReinsch’	SasiReka. G	J. Algal Biomass Utln. 2018, 9(1): 44-50.	2018	-	-	-
Enzymatic Transesterification of Biodiesel Production from Scenedesmussp and its Parameter Optimizing through Response Surface Methodology.’	SasiReka. G	J. Algal Biomass Utln. 2018, 9(1): 26-36	2018	-	-	-
Low Cost Photo Bioreactor for Marine Microalga Cultivation 5 (XII), December 2017. International journal for Research in Applied Science and Engineering Technology.	SasiReka. G	(UGC Journal No 44382 & Thomson Reuters N-9681-2016).	2018	-	-	-
Approaches to understand Heat and Mass Transfer phenomenon in FOOD grain storage systems	Manonmani T	International Journal of Current Research	-	-	-	-
Microbial Inactivation in raw milk processed by hurdle technology	Shivani Indumathi	International Journal of Agricultural Science	2018	-	-	-
Inactivation of alkaline phosphatase and shelf life extension of milk processed by hurdle	Shivani Indumathi	International Journal of current microbiology	2018	-	-	-

technology		and applied science				
Design consideration of mounded storage vessel	Venkatesh Babu Samikkannu	IJLTET	2018	16	-	-
Production of pleurotusflorida using different substrate	Venkatesh Babu Samikkannu	IJLTET	2018	7	-	-
Recovery of propylene from lpg	Venkatesh Babu Samikkannu	IJLTET	2018	6	-	-

### 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
N-Dimensional quadrature frequency shift keying	Mr.Bijubala krishnan	ICCPEIC Publisher :IEEE	2017	1	-	-
Performance Analysis of Clustering-Based Topology Generation and disable nodes for NoC	Mr.A.Kalimuthu	International Journal of Computer Sciences and Engineering	2018	1	2	-
Low Power Network-on-Chip Virtual Channel Router Architecture	Mr.A.Kalimuthu	International Journal of Scientific Research and Review	2018	1	2	--
Improve the performance and low power of NoC based Router architecture with error detection and Correction using DMC	Mr.A.Kalimuthu	International Journal of Imaging Science and Engineering	2017	1	2	-
NOC Based Router Architecture Design Through Decoupled Resource Sharing Using CABHR Algorithm	Mr.A.Kalimuthu	International Journal of Reconfigurable and Embedded Systems	2017	1	2	-
Efficient Design of Error Recovery and Improve the Performance Using Mesh of Ring Topology Based NoC	Mr.A.Kalimuthu	International Journal of Advanced Engineering Research and	2017	1	2	-

		Science				
Automatic Segmentation of lesion from breast DCE-MR image using artificial fish swarm optimization algorithm	Dr.K.Geetha	Polish Journal of Medical Physics and Engineering	2017	2	NIL	2
Analysis of non isolated multiport single ended primary converter for standalone applications ”	C.Sakthivel	International Journal of Energies	2018	1	NIL	1
Advancement of imaging and modeling techniques for understanding gastric physical forces on FOOD	Gopirajah R	FOOD Engineering reviews 8 (3), 323-335	-	-	-	-
Methods integrating physical mechanisms underlying the FOOD digestion and release of nutrients in human stomach	Gopirajah R	J NutrNutrEpidemiol 1, 1-13	-	-	-	-
Effect of extrusion process conditions on the physical properties of tef-oat healthy snack extrudates	Gopirajah R	Journal of FOOD Processing and Preservation 42 (3), e13559	-	-	-	-
Computational modelling of dehydration of mushroom	Gopirajah R	MOJ FOOD Processing & Technology 6 (3), 264-270	-	-	-	--
Biomass Production and GC-MS Analysis of SelenastrumbibraianumRei nsch’	SasiReka. G	J. Algal Biomass Utln. 2018, 9(1): 44-50.	2018	-	-	-
Enzymatic Transesterification of Biodiesel Production from Scenedesmussp and its Parameter Optimizing through Response Surface Methodology.’	SasiReka. G	J. Algal Biomass Utln. 2018, 9(1): 26-36	2018	-	-	-
Low Cost Photo Bioreactor for Marine Microalga Cultivation 5 (XII), December 2017. International journal for Research in Applied Science and Engineering Technology.	SasiReka. G	(UGC Journal No 44382 & Thomson Reuters N-9681-2016).	2018	-	-	-
Design consideration of mounded storage vessel	Venkateshbabu samikkannu	IJLTET	2018	2	0	0

Production of pleurotus florida using different substrate	Venkatesh babu samikkannu	IJLTET	2018	2	0	0
Recovery of propylene from lpg	Venkatesh babusamikkannu	IJLTET	2018	2	0	0
Fixed bed adsorption of atrazine onto microwave irradiated asglemartmeloscorreashell: staistical optimization, process design and breakthrough modelling	K.Balasubramani	Journal of Molecular liquids	2017	1	-	1
Disolution kinetics of cerium from red mud	G.Surendran	Separation Science and Technology	2017	1	-	1

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

No. of Faculty	International level	National level	State level	Local level
<b>Attended Seminars/Workshops</b>	27	27	38	54
<b>Presented Papers</b>	38	28	05	17
<b>Resource Persons</b>	1	4	07	15

### 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**

<b>Title of the Activities</b>	<b>Organising unit/ agency/ collaborating agency</b>	<b>Number of teachers co-ordinated such activities</b>	<b>Number of students participated in such activities</b>
Dengue Awareness Program	NSS	2	50
Apply Voter ID through Online	NSS	2	50
Blood Stem Cell Donation Awareness Program	NSS	2	50
Awareness against Drug	NSS	2	50
YOGA	ISHA YOGA	2	50

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

<b>Name of the Activity</b>	<b>Award/recognition</b>	<b>Awarding bodies</b>	<b>No. of Students benefited</b>
Project Contest	1 <sup>st</sup> Prize	Bannari Amman Institute of Technology, Sathiyamangalam, Erode	4

**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**

<b>Name of the scheme</b>	<b>Organising unit/ agency/ collaborating agency</b>	<b>Name of the activity</b>	<b>Number of teachers coordinated such activities</b>	<b>Number of students participated in such activities</b>
Awareness	JCT College of Engineering and Technology, Coimbatore	Awareness campaign "Plastic Pollution-free Tamil Nadu"	2	55

### 3.5 Collaborations

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

##### Department of Electrical and Electronics Engineering

Nature of Activity	Participant	Source of financial support	Duration
National Conference on “NCEEECE-18” Emerging Trends in Electrical, Electronics and Computer Engineering	II,III&IV Year Student EEE (93 Students)	JCT College of Engineering and Technology, Coimbatore	04.04.18
Student exchange – Title:Project in Designing of Digital relay by using software tool	Krishna Kumar .S Final Year Student EEE (31 Students)	JCT Institutions & Ingenious Power and Control Systems Pvt.Ltd., Coimbatore.	13.03.18 to 12.04.18
Seminar on” Advanced Technology in Solar System”	Final Year students EEE (31 Students)	JCT College of Engineering and Technology, Coimbatore	09-03-18
Workshop on ‘Industrial Automation Tools and Techniques’	III&IV Year Student EEE (51 Students)	JCT College of Engineering and Technology, Coimbatore	07.03.18
Workshop on “Solar Energy”	II&III Year Students EEE (62 Students)	JCT College of Engineering and Technology, Coimbatore	15.02.18 & 16.02.18

In-Plant training in MAS Solar System Pvt Ltd,Coimbatore	SecondYear Student EEE (8 Students)	JCT College of Engineering and Technology, Coimbatore	07.12.17 to 22.12.17
Workshop on” Internet of Things” by Prolific System and Technology Pvt ltd ,Coimbatore	Final Year Students , EEE (31 Students)	JCT College of Engineering and Technology, Coimbatore	21-09-17 & 22.09.17
In-Plant Training in ARUMUGAM & SONS Erode	12 Students	JCT College of Engineering and Technology, Coimbatore	06-12-17 to 20-12-17
Guest Lecturer on Design of Structures using STADD Pro	56 Students	JCT College of Engineering and Technology, Coimbatore	04-10-17
Industrial Visit inBaluBuilders Maruthamalai Road, Coimbatore.	28 Students	JCT College of Engineering and Technology, Coimbatore	25-08-17
Piping technology and simulation software in Arris CADD Technology	Final Year Students MECH	JCT College of Engineering and Technology, Coimbatore	13-07-17
In plant training , Industrial Visit Lotte India Corporation Ltd.	Final Year Students food 30	JCT College of Engineering and Technology, Coimbatore	6.6.2017
Industrial Visit	Third Year Students	JCT College of Engineering and	07.9.2018



Bench Mark Tea Factory	food  40	Technology, Coimbatore	
Seminar on Software Testing in JMJ Institute for Software Training, Coimbatore	Second Year Students CSE 24	JCT College of Engineering and Technology, Coimbatore	05.10.2017
Seminar on Web development in TradeZap Technologies	Third Year Students CSE 29	JCT College of Engineering and Technology, Coimbatore	23.02.18
Embedded System Design using Arduino	30	JCT College of Engineering and Technology, Coimbatore	11.08.17
PCB Design for Real time Applications	40	JCT College of Engineering and Technology, Coimbatore	29.08.17
Testing of VLSI Circuits	40	JCT College of Engineering and Technology, Coimbatore	08.09.17
Real time Application Using Raspberry pi	40	JCT College of Engineering and Technology, Coimbatore	26.09.17
Inplant Training in Avinash Engineering, Coimbatore	05	JCT College of Engineering and Technology, Coimbatore	11.12.2017 to 16.12.2017
Inplant Training in AS Engineering Works,	05	JCT College of Engineering and Technology	05.12.2017-09.12.20

Coimbatore			17
Inplant Training in Ambal Private Industrial Training Institute, Coimbatore	10	JCT College of Engineering and Technology	11.12.2017 to 15.12.2017
Guest lecture in Sharp Engineering Industry, Coimbatore	30	JCT College of Engineering and Technology	08.12.2017 to 15.12.2017
Inplant Training in Sharp Engineering Industry, Coimbatore	30	JCT College of Engineering and Technology, Coimbatore	18.12.17 to 20.12.17

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

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration (From-To)	participant
Direct	Internship/ In-plant Training	Ambal Autos, Coimbatore.	Dec 2017	10
Direct	Internship/ In-plant Training	Karivardhan Vocational Institute,	June 2018	30

		Coimbatore.		
Internship Training	Villa and apartment construction	Victoria realtors, Coimbatore.	18.06.18 to 28.06.18	4
Internship Training	Residential Building Construction	J.M constructions, Coimbatore.	01.06.18 to 11.06.18	4
Internship	Job Training	Gateway solutions, Coimbatore.	01.12.17 to 16.12.17	13
Internship	Job Training	Tech Creations, Bangalore.	01.12.17 to 16.12.17	10
Internship	Job Training	Skava Systems, Coimbatore.	01.12.17 to 16.12.17	6
Internship	Smart Irrigation System using IOT	Panamon Technologies Pvt.Ltd,Chennai.	01.12.17to 30.03.18	2
Direct	Internship/ In-plant Training	Avinash Engineering, Coimbatore	11.12.17 to 28.12.17	07
Direct	Internship/ In-plant Training	Malabar Cements, Palakkad.	07.12.17 to 22.12.17	10
Direct	Internship/ In-plant Training	Accutech, Coimbatore.	13.12.17 to 28.12.17	09
Direct	Internship/ In-plant Training	Sri Sabari Industries, Coimbatore.	12.06.17 to 23.06.17	08
Direct	In-plant Training	COCA COLA, Coimbatore.	23.08.18 to 28.08.18	1
Direct	In-plant Training	AAVIN, Coimbatore.	04.06.18 to 13.06.18	1
Direct	In-plant Training	MERRY TIME CREAM, Kerala.	01.06.18 to 30.06.18	1
Direct	In-plant Training	EDHAYAM FROZEN FOODS PVT. LTD, Tuticorin.	26.06.18 to 27.06.18	1
Direct	In-plant Training	HATSUN AGRO PRODUCT, Coimbatore.	04.06.18 to 08.06.18	2
Direct	In-plant Training	FOSTER HOT BREAD PRIVATE LIMITED, Kerala.	26.11.18 to 17.12.18	1
Direct	Internship	DAIRY PRODUCTION & LAB ANALYSIS,	3.12.17 to 14.12.18	1

		Coimbatore.		
Direct	Internship	JR CLUB SODA, Coimbatore.	13.12.17 to 22.12.17	6
Direct	Internship/ In-plant Training	ONGC-Karaikal.	17.01.18 to 31.01.18	12
Direct	Internship/ In-plant Training	CPCL,Chennai.	25.06.18 to 29.06.18	5
Direct	Internship/ In-plant Training	Oil Tech Engineering, Chennai.	25.01.18 to 17.03.18	12
Direct	Internship/ In-plant Training	Universal Heat Exchangers, Coimbatore.	02.02.18 to 05.03.18	6
Direct	Internship/ In-plant Training	Reliance Pvt. Ltd, MP.	05.02.18 to 24.02.18	3
Direct	Internship/ In-plant Training	IOCL, Kerala.	15.01.17 to 28.02.17	4
Direct	Internship/ In-plant Training	ONGC-RGL, Chennai.	22.01.18 to 02.02.18	7
Direct	Internship/ In-plant Training	ONGC-IPSHM- Goa.	01.02.17 to 05.03.17	3
Direct	Internship/ In-plant Training	Trivancore Chemical Pvt. Ltd, Trivancore.	03.01.18 to 31.01.18	2
Direct	Internship	Drilling Mentor Pvt.Ltd, Ahmedabad.	07.06.18 to 18.07.18	2
Direct	Internship	Hindustan Organic Chemical ltd, Kochi.	15.02.18 to 22.02.18	1
Direct	Internship	ONGC-RGL, Chennai.	11.06.18 to 29.06.18	2
Direct	Internship	ONGC-Chennai	26.06.18 to 25.07.18	5
Direct	Internship	ONGC-Karaikal.	15 days	8
Direct	In - plant Training	MAS Solar Systems Pvt.Ltd, Coimbatore.	07.12.18 to 22.12.18	8
On-the-job Training	Industrial Automation using PLC	Ingenious Power and Control Systems Pvt.Ltd, Coimbatore.	19.03.18 to 02.04.18	3

Direct	Internship	Keltron, Kerala.	07.12.17 to 13.12.17	4
Direct	In - plant Training	U.N.I.Q Technology, Coimbatore.	31.05.18 to 06.06.18	6
Direct	In-plant Training	Transformers and electrical Kerala limited, Kerala.	04.06.18 to 06.06.18	1
Direct	In-plant Training	Regional Telecom training centre, BSNL Kerala.	20.06.18 to 28.06.18	3
Direct	In-plant Training	ITI Limited, Palakkad, Kerala.	25.06.18 to 30.06.18	3
Direct	Industrial Visit	Karnataka Soaps And Detergents, Mysore.	15.09.17	45
Direct	Internship	FACT, Kochi.	25.08.17 to 30.08.17	6
Direct	Internship	HOCL, Kochi.	25.08.17 to 02.09.17	9
Direct	Internship	TCC, Trivangore.	10.07.17 to 19.07.17	10
Direct	Internship	Reliance Refineries, Gujrat.	15.06.17 to 15.07.17	30
Direct	In-Plant Training	ONGC Karaikal.	19.06.18 to 28.06.18	10
Direct	In-Plant Training	Oman Chemical Co.LI.C, Oman	03.07.17 to 13.07.17	10
Direct	In-Plant Training	Cetex Petrochemicals Ltd,Chennai.	14.02.18 to 14.02.2018	5
Direct	In-Plant Training	Cetex Petrochemicals Ltd, Chennai.	02.02.18 to 08.02.18	5

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

<b>Organisation</b>	<b>Date of MoU signed</b>	<b>Purpose and Activities</b>	<b>Number of students/teachers participated under MoUs</b>	<b>Organisation</b>
Institute	18.09.2017	Industry oriented training and placement	15	Arumugam and Sons, Erode.

Institute	10.09.2017	Inplant Training	15	Metti's Structures, Coimbatore.
Institute	12.08.2017	Inplant Training	10	CADD Technologies school of design, Coimbatore.
Institute	18.07.2017	Inplant Training and Placement for students	10	Balu Builders, Coimbatore.
Institute	01.08.2017	In plant Training Value added course	29	Avatar Academy, Erode.
Institute	14.07.2017	In plant Training Value added course	98	DreamDots Technologies, Coimbatore.
Institute	14.07.2017	In plant Training Value added course	98	TradeZap Technologies, Coimbatore.
Institute	10.07.2017	Research Training and Placement	98	Magnus Vista Technologies, Coimbatore.
Institute	13.06.2017	Inplant Training, Value Added Courses and Placement for students	12	Caliber Embedded Technologies, Coimbatore.
Institute	01.07.2017	Inplant Training,	11	Megatronics, Coimbatore.
Institute	02.07.2017	Inplant Training, Value Added Courses and Placement for students	16	Kris Technologies, Coimbatore.
Institute	13.06.2017	Inplant Training, Value Added Courses and Placement for students	10	Vee Explore Ltd, Coimbatore.
Institute	02.07.2017	Inplant Training, Value Added Courses and Placement for students	14	Hi-Tech Electronics, Trichy.
Institute	22.08.2017	In plant Training Value added course	10	Sri sabari Industries Coimbatore.
Institute	15.02.2018	In plant Training Value added course	15	Accutech, Coimbatore.
Institute	07.09.2018	Industrial Visit	40	Bench Mark Tree Factory, Coimbatore.
Institute	06.06.2017	Student Placement , In plant training , Industrial Visit	30	Lotte India Corporation Ltd. Chennai.
Institute	22.11.2018	Storage vessel design	64	Vlands Best Hub pvt ltd, Coimbatore.

Institute	13.12.2018	In-plant training/Software		Citax Energy Pvt ltd,U.A.E.
Institute	07.03.2018	In – Plant Training and Industrial Oriented Training	47	IPC Automation, Coimbatore.
Institute	15.02.2018	In – Plant Training, Industrial Visit and Industrial Oriented Training	58	MAS Solar Systems Pvt Ltd, Coimbatore.
Institute	13.06.2017	To conduct Certificate course	105	ArrisCadd Technology, Coimbatore.

<b>CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES</b>						
<b>4.1 Physical Facilities</b>						
4.1.1 Budget allocation, excluding salary for infrastructure augmentation during the year						
Budget allocated for infrastructure augmentation			Budget utilized for infrastructure development			
60 lakhs			52.73 lakhs			
4.1.2 Details of augmentation in infrastructure facilities during the year						
Facilities		Existing		Newly added (Academic Year)		
Campus area		11.09 Acres		-		
Class rooms		48		-		
Laboratories		82		-		
Seminar Halls		05		-		
Classrooms with LCD facilities		19		10		
Classrooms with Wi-Fi/ LAN		48		-		
Seminar halls with ICT facilities		05		-		
Video Centre		01		-		
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.		50		4		
Value of the equipment purchased during the year (Rs. in Lakhs)		15,981,582		3,045,552		
Others		NIL		NIL		
<b>4.2 Library as a Learning Resource</b>						
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
Dolphin		Fully (Impres ERP)		2015		2015
4.2.1 Library Services:						
	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	23108	8211578	160	117000	23268	8328578
Reference Books	545	252425	-	-	545	252425
e-Books	-	-	-	-	-	-
Journals	84	208000	-	-	84	208000
e-Journals	3	595000	-	-	3	595000
Digital Database	3	595000	-	-	3	595000
CD & Video	250	-	-	-	-	-
Library automation	Dolphin LMS	-	-	-	-	950000
Weeding (Hard & Soft)	-	-	-	-	-	-
Others (specify)	NPTEL, DELNET,IEEE ,J-GATE	-	-	-	-	5,92,071



<b>4.3 IT Infrastructure</b>									
4.3.1 Technology Upgradation (overall)									
	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Available bandwidth (MBPS)	Others
Existing	400	12	400 systems	1	3	28	372	48 MBPS	-
Added	180	1	180 systems	1	1	-	180	15 MBPS	-
Total	580	13	580 SYSTEMS	2	4	28	552	63 MBPS	-
4.3.2 Bandwidth available of internet connection in the Institution (Leased line)									
.....63..... 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				
UleKtz					<a href="https://play.google.com/store/apps/details?id=com.Ulektz.JCTCET">https://play.google.com/store/apps/details?id=com.Ulektz.JCTCET</a>				
4.3.4 E-content developed by teachers such as: e-PG-Pathshala, CEC (under e-PG-Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc									
Name of the teacher		Name of the module			Platform on which module is developed		Date of launching e - content		
All Teacher		Course Material-Lesson Plan- Question Bank			JleKtz		02-07-2017 02-01-2018		

<b>4.4 Maintenance of Campus Infrastructure</b>			
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
50 lakhs	43.03 lakhs	440 lakhs	431.40 lakhs
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)			
<b>Procedures and policies for maintaining and utilizing physical, academic and support facilities</b>			
<b>Laboratory, Library, Sports Complex, Computers, Class rooms etc.</b>			
JCT College of Engineering and Technology has a well established procedures and policies for maintaining and utilizing physical, academic and support facilities such as Laboratory equipment, library facilities, computers, class rooms, sports complex etc.,			
An Estate maintenance department headed by an Estate officer is responsible for the entire maintenance activity of the college. The maintenance works in the college are grouped into the following categories:			

1. Civil Maintenance
2. Water supply
3. Electrical Maintenance
4. House Keeping and Sanitation
5. Computer Maintenance
6. General & Mechanical maintenance

The above maintenance teams comprise of a set of skilled and unskilled personnel who are responsible to attend to any minor or major maintenance issues. Some of the maintenance work carried out in-house are as follows.

- ✓ Civil maintenance department looks after all the construction and maintenance works in the campus.
- ✓ The institution has efficient housekeeping system consisting of gardeners, sweepers and scavengers. The entire system is monitored by housekeeping supervisors who are specifically appointed for this purpose.
- ✓ Gardeners are employed to ensure an ambient look to the college by maintaining the lawns and trees.
- ✓ Class rooms, office rooms and corridors are regularly swept and mopped. Once in a week, the furniture and roofs are cleaned.
- ✓ Power supply, Generators and Electrical repairs are carried out by the electricians to enable the campus with uninterrupted electric power.
- ✓ In order to ensure proper water supply to the college, hostels, canteen and laboratories, plumbing repairs are rectified by the water supply maintenance team at any instant throughout the campus.
- ✓ Any emergency like medical and fire are handled with proper care to enable a safer working environment.
- ✓ All machineries in the laboratories are maintained either by trained staff in the department or by the supplier / service agents of the machines.
- ✓ All Mechanical / Electronic / Electrical equipment in the laboratories are maintained to prevent breakdowns through scheduled preventive maintenance.
- ✓ Wherever required, the equipment are covered under AMC.
- ✓ Any breakdowns of machines and equipment are attended to with less time delay by the competent professionals or the manufacturer.

#### **Calibration and other precision measures for the equipment / instruments**

- ✓ Yearly maintenance and repair of the infrastructure is taken care of by the college systematically.

- ✓ The institution calibrates and services the laboratory instruments and measuring equipment with the help of suppliers.
- ✓ The calibration of equipment/instruments is done in line with the recommendations of the manufacturer.

#### **Maintenance of sensitive equipment**

- ✓ The institution has installed UPS and Stabilizers to prevent sensitive equipment from voltage fluctuations.
- ✓ Constant power supply throughout the campus is enabled with the use of generators, UPS and inverters to enable a regular working environment.
- ✓ Electric and Electronic Gadgets are maintained in proper environment to avoid any electrical accidents.
- ✓ Voltage Fluctuations, Constant Supply Of Water.
- ✓ All the computer laboratories are provided with UPS connectivity to protect the hardware and the software from power related failures.
- ✓ Other laboratories are integrated with circuit breakers in each point to avoid major failure.

**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	392	9657248
Financial support from other Sources (LakshmiCharitable Trust,Chennai)	100	600000
a) National		
SC/ST Scholarship(Government of Tamilnadu)	193	15024440
BC/MBC/DNC Scholarship (Government of Tamilnadu)	283	1783675
b) International		
	-	-

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
Counselling and mentoring	05.07.2017	120	Internal Trainers and Faculty member
Communication Skill	2.07.2018	36	Internal Trainers and Faculty member
Communication Skill	03.07.2017	120	Internal Trainers and Faculty member
Remedial Coaching	11.10.2017	31	Faculty member of JCTCET
Bridge Courses	August 2017	39	Faculty member of JCTCET
Aptitude and Communication Development	July 2017 to September 2017	46	Internal Trainers
Quantitative Aptitude Training	December 2017 to march 2018	26	Internal Trainers
Embedded System using Arduino	21.08.2017 to 26.08.2017	26	Mr.M.Kannan Application Engineer, Enthu Technologies, Coimbatore.
IoT using Arduino	28.08.2017 to 4.09.2017	20	Mr.M.Kannan Application Engineer, Enthu Technologies, Coimbatore.
PCB Design	18.09.2017 to 23.09.2017	35	Mr.Moorthy Design Engineer, NITAN Technologies, Coimbatore.
Personal Counselling	10.01.2012	98	Internal Trainers
Mentoring	10.01.2012	98	Faculty members

Soft Skill Development	1.1.2017 -3.1.2017	20	SIM InfoSystem PvtLtd
Yoga	21.06.2018	45	ISHA Foundation
International Yoga Day	23.06.2017	47	JCT College of Engineering and Technology
Remedial Coaching	15.09.2018	35	JCT College of Engineering and Technology
Personal Counselling	04.04.2018	1	Internal Trainers

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

Year	Name of the scheme	Number of benefited students by Guidance for Competitive examination	Number of benefited students by Career Counselling activities	Number of students placed
2017-2018	EAC Scheme	482	482	216
	Aptitude and Communication development	482	482	216
	Quantitative Aptitude Training	482	482	216

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
12	12	7 Days

## 5.2 Student Progression

### 5.2.1 Details of campus placement during the year

On campus			Off Campus		
Name of Organizations Visited	Number of Students Participated	Number of Students Placed	Name of Organizations Visited	Number of Students Participated	Number of Students Placed
PoornamInfovision Pvt. Ltd., Cochin	52	1	Sandfits Foundry, Coimbatore	4	3
Auriss Technologies, Coimbatore	36	1	Avalon Technologies, Bengaluru	3	3
FACE,	106	4	CP Foods Pvt.	10	2

Coimbatore			Ltd., Bangalore		
Maintec Technologies, Chennai	50	7	Manjilas Foods Pvt. Ltd., Pollachi	3	1
Skylink Technologies, Chennai	100	8	Radhakrishna Foodland, Chennai	1	1
ThinkSynq Solutions Pvt. Ltd., Chennai	52	37	Enerlife India Pvt. Ltd., Chennai	1	1
Alpha Associates, Coimbatore	63	47	Hatsun Agro Pvt. Ltd., Chennai	3	2
Saehan Stamping Pvt. Ltd., Chennai	49	34	Ameya Foods, Coimbatore	10	5
Silver Peak Global Pvt. Ltd., Bengaluru	114	9	IPCS Automation, Coimbatore	20	14
Windcare India Pvt. Ltd., Gudimangalam	98	13	ITSHO Industrial Solutions Pvt. Ltd., Chennai	15	7
Genn Controls, Coimbatore	130	4	Global SS Construction, Mumbai	10	9
Senthil Papain Food and Products, Coimbatore	14	9	VNS EnviroPvt. Ltd., Chennai	1	1
SPIC, Tuticorin	21	2	HamaraPeriyar Cements, Kerala	1	1
-	-	-	Aqua Spring, Coimbatore	1	1
-	-	-	Tagros Chemicals India Pvt. Ltd., Tuticorin	10	5
-	-	-	Eco pure Technologies, Chennai	1	1
-	-	-	VisalTribotech Pvt. Ltd., Hosur	10	9
-	-	-	Arumugharaj&Co., Coimbatore	2	2
-	-	-	RVS Constructions, Coimbatore	1	1

-	-	-	Metis Constructions, Coimbatore	1	1
-	-	-	PN Construction, Coimbatore	6	4
-	-	-	Dhanam Construction, Coimbatore	2	2
-	-	-	CADD Technologies, Coimbatore	5	2

#### 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
2017 – 2018	1	B.E	Automobile Engineering	Hindustan Institute of Technology - Chennai	M.Tech
	3	B.E	Civil Engineering	JCTCET,NIET	M.E(Structural Engineering)
	2	B.E	Electrical and Electronics Engineering	JCT College of Engineering and Technology	M.E.(Power Electronics and Drives)
	1	B.Tech	Petroleum Engineering	University of Chinese Academy of Sciences	MS
	1	B.Tech	Food Technology	Fleming college, Peterborough Ontario	MS
	1	B.Tech	Food Technology	Poznan University, Poland	MS
	1	B.E	Mechanical Engineering	Nehru college of Management	MBA

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
GATE	1	CE18S81319023
TANCET	1	12113320
IELTS	1	251427

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

Activities	Level	Participants
<b>SPORTS EVENTS</b>		
Kabaddi tournament	College level	144
Volleyball	College level	120
Cricket	College level	150
<b>CULTURAL EVENTS</b>		
PREVEGA	Intercollege	250
Onam Celebrations	College level	500
Annual Day	College level	600

### 5.3 Student Participation and Activities

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

Year	Name of the award/ medal	National/ International	Sports	Student ID number	Name of the student
2017-18	Bronze	National	Cricket	720914103023	S.Selvendiran
	Bronze	Zonal level	100 meter Running	720917106011	S.Gayathridevi
	Bronze	Zonal level	Foot ball	720916106022	T.P.MohammedRabiyulla
	Gold medal	National	Taewondo	720915139073	Nithin.C
	Third prize	National level	Judo	720316218040	S.Sandhiya
	First Prize	National	Judo	720316218040	S.Sandhiya
	Second Prize	Zonal level	Kabaddi	720915114058 720915114080 720915114037 720914114048 720914114018	V.Prabakaran V.Vijayakumar S. Manikandan T.Kugan M.Alagumadasamy
	Bronze	National	Cricket	720917104001	AkashRaj
	Third prize	Zonal level	Volley ball	720915102008	Dhanabal
4 <sup>th</sup> palce	Zonal level	Cricket	720914114053	Nallaperumal	



	Third prize	Zonal level	Boxing	720916114031	Jobin Johnson
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5.3.2 Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

#### **5.4 Alumni Engagement**

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

**Yes**, Our institution has registered our Alumni Association Under the '**Tamilnadu Societies Registration Act, 1975**' at Coimbatore entitled in the name of '**JCT COLLEGE OF ENGINEERING AND TECHNOLOGY ALUMNI ASSOCIATION**' on 9<sup>th</sup> January, 2017 vide Certificate Number 6/2017.

JCT has a strong bond with its alumni since its inception. We are proud of our alumni who have not only created a niche for themselves in the corporate world but also served as our brand ambassadors in industries in India and abroad. JCT Alumni Associations strengthens the bond between the alumni and the institute and creates common platform for greater interaction.

#### **OBJECTIVES OF THE SOCIETY:**

- 1) To create a brotherhood, cooperation, mutual harmony and affection amongst members of the association.
- 2) To facilitate and encourage alumni to contribute towards the improvement of infrastructure for all round development of the current batch of students of JCTCET.
- 3) To organize seminars, workshops and meetings and media from time to time.
- 4) Encouraging advancement of Science & Technology through Industry-Academia interaction and sponsored projects.
- 5) Providing career guidance in both academic and extracurricular field to the public at large and students of the JCTCET in particular and creating opportunities for sharing technology/knowledge amongst the members and the students.
- 6) To create awareness about important social issues and develop a sense of national /social responsibility (through activities like medical camp, eye check up, and blood donation camps etc) amongst alumni, and students through various social activities.
- 7) To create a forum in JCTCET to exchange views and experience.

- 8) Alumni association acts as per provisions of the Tamil Nadu Society Registration Act 1975 and rules 1978.
- 9) Alumni association comprises office bearers and executive members.
- 10) The executive committee consists of President, Vice-president, Secretary, Joint Secretary, Treasurer and 5 Executive Committee members.



Our alumni are important stakeholders in the development of the JCTCET. Alumni are great role models for current students and also often well-placed to offer practical support to students as they start their careers. They take their knowledge of our institution to their hometowns and into their professional.

5.4.2 No. of registered enrolled Alumni: <b>440</b>
5.4.3 Alumni contribution during the year (in Rupees) : <b>Rs 3,30,000 .00</b>
5.4.4 Meetings/activities organized by Alumni Association : <b>03</b>

**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)**

Among the many practices of decentralization and participative management, the following deserves to be mentioned here. They are:

1. Self governance and decision making
2. Faculty representation in governing council.

(i) Unlike most of the educational institutions where in decisions are made by the top management with the instructions to faculty and staff to execute, our college has a system of participative management. All decisions are taken by the Principal after seeking the views and opinions of the Heads of Departments in the meetings conducted periodically for this purpose. Normally the HoDs on their part do not express their own views as the collective views of the department to the Principal. Instead, the views of the faculty are obtained by the HoDs concerned in the department level meetings. The department level meetings are conducted between two consecutive meetings of the HoDs. For example, if the meeting of the HoDs are conducted in anyone of the days in the odd weeks of the calendar month, the department level of meetings will be conducted in any working day in the even weeks of the calendar month. Thus, even faculty and staff play a role in the decision making process of the college.

(ii) Our college has a Governing Council constituted as per the guidelines of AICTE. Governing Council is the apex decision making body. Two senior faculty members have been nominated as members in the Governing Council. They are issued with the Agenda & Notes of all meetings of the Governing Council well in advance. This gives them ample opportunity to discuss certain points with their colleagues and to represent in the meetings of the Governing Council. This provides a means of getting to know the views of the faculty by the members of the Governing Council and to take decisions accordingly.

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

**Yes/No/Partial:**

**Yes,**

- The Institution has a powerful E-Governance System. Impres-ERP software is used for complete college solutions including admission, administration, academic, financial practices, Payroll, Library Management system and for all such processes in the institution.
- The official webmail ID is given to all staff members, to ensure information is passed on time to the staff concerned. Software packages are used to generate a variety of reports that help in taking correct and informed decisions.
- The biometric system is used effectively to record attendance of staff members.

**6.2 Strategy Development and Deployment**

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

**❖ Curriculum Development**

As the college is affiliated to Anna University, Chennai, the curriculum is prescribed by the university. However, the curriculum gap is identified and the necessary actions are planned and implemented through Departmental Advisory Committee (DAC). Semester system is followed for all programmes. The required core courses have corresponding laboratory courses to fulfill the criterion of 'Learning by actually doing'. This is further supplemented by project work and adequate industrial exposure. The emphasis on hands-on

experience through laboratory and project work ensures high employability of the students.

### ❖ **Teaching and Learning**

A new mobile application called Jlektz- has been developed for helping our students in the Teaching and Learning Process.

The salient features of the applications are:

1. Faculty can upload their lecture material.
2. Faculty can upload video lectures.
3. Students can take Quizzes using his app and get evaluated instantaneously.

The specialty with this app is that it is available in both android & ios versions

### ❖ **Examination and Evaluation**

The institution follows the 'Rules and Regulations' framed by the Anna University to conduct examinations and Evaluation.

- Assessment of performance is an integral part of any process of Teaching and Learning. The objective is to make r the examination system to ensure a method of assessment that is valid and reliable measure of students performance.
- Three question papers are set based on Anna University pattern for each courses as per Blooms Taxonomy.
- The Continous Internal Assessment (CIA) and Model examinations are conducted as per the schedule given by the Anna University and the question papers are audited by IQAC and the answer scripts are cross evaluated by the respective course faculty.
- After evaluation of the test papers, calculation of internal marks and pre and post web portal entries are audited by IQAC.
- Theory and practical examinations consist of two components namely, external evaluation for 80% marks and internal evaluation for 20% marks.
- Attendance as well as the assessment marks are communicated to the parents through Mobile phones and letters. Parent-Teachers meetings are conducted every semester to review the performance of the students.
- Counselling of students every week to find out the academic progress and guide them towards improvement based on remedial classes.

### ❖ **Research and Development**

- The Research and Development Cell is established with an objective of promoting research by faculty members and the students in newly emerging and challenging areas of Engineering, Technology, Science and Humanities. R&D Cell encourages the faculty members and students sending their research proposals and receiving funds from various funding agencies. Apart from this, they avidly present papers in National and International Conferences and publish research articles in leading journals. The institute also facilitates faculty to pursue research by registering for M. Phil., and Ph.D., Programme.
- Faculty are provided with 'On Duty', 50 % refund of Registration for participating in Conferences, FDPs, Seminars etc.,
- Encouraging faculty to organize, attend and present papers at State/National/International Conferences and Seminars.
- Faculty members are guiding their students to do grant-in aid research under student project schemes. Experts from reputed institutions are invited for R & D related interactions. Project proposals are usually examined and evaluated by the Project Scrutinizing Committee before they are sent to the funding agency.

### □ **Library, ICT and Physical Infrastructure / Instrumentation**

**Library:** Institute has constituted a committed 'Library Advisory Committee'. This committee is active throughout the year to update and improve the quality of library, its resources and functioning.

- Faculty members and students are made aware of the use of the reference books, other useful books and digital library through Notices and Circulars.
- Students and staff members have open access to library and also can access the availability of books through Web-OPAC.
- Library has sufficient e-journals which include DELNET, IEEE etc. Sufficient back volumes for all the departments are available. Digital library facilities with National and International online journals are also provided. Library administrations like issue / return of books are maintained through commercial library software. The library building is enabled with Wi-fi facility.
- Every year, additional volumes of books are added based on the requirements from all the departments. Every class has one compulsory library hour / week for permitting the students to access the reference books and journals which augments the learning process. Apart from the central library, every department has a Departmental Library and NPTEL videos and animation for various subjects.
- Book bank scheme is in vogue.

**ICT:** Class rooms are enabled with ICT tools.

- Students are permitted to access the computers with internet facility in the library. Smartboards and projectors are installed in the laboratories, Seminar halls and one class room in each department to facilitate ICT enabled teaching and learning.
- The target learning outcomes are attained through 'Student-Centric' teaching approach like demonstration of models and periodical field visits.

**Physical Infrastructure / Instrumentation:**

- Adequate number of seminar halls and conference halls with air-conditioners and audio-visual facilities, video-conferencing facility are available.
- All the computer laboratories are well equipped that fulfil the academic and research needs.
- Smart class rooms, Language Laboratory, Central Library, Departmental Libraries, Medical Centre with an ambulance, Sports Centre, Cafeteria, ATMs, Gymnasium, Separate hostels for both Boys and Girls, Playgrounds, Lift, RO water plant and adequate vehicle-parking space for students and staff are available.
- CCTV cameras have been installed in strategic locations on the campus.
- Adequate numbers of fire extinguishers at vantage points are kept and the staff and students are trained to handle it

**Human Resource Management**

- The Heads of Departments communicate a requisition to the management through the Principal and Human Resource Department (HRD) of the institution as and when vacancy arises in their departments. HRD advertises and follows a well-laid procedure in recruiting teaching and non-teaching staff.
- Orientation and training programmes are organised periodically for the new recruits.
- Performance Appraisal of faculty is conducted every year on various criteria. Accordingly, suggestions are provided for further improvement and achievements are appreciated. Feedback received from students is also useful in determining the performance of the faculty. Every year feedback from Parents is also obtained for the improvement at departmental level.
- The quality improvement strategies of the institution in the field of Human Resource Management are as follows:

<ul style="list-style-type: none"> <li>◆ Enhancing faculty skills and abilities.</li> <li>◆ Promoting positive attitude and motivation.</li> <li>◆ Providing faculties with expanded responsibilities to fully utilize their dormant skills and talents.</li> <li>◆ Valid selection method to recruit skilled faculties and non-teaching staff.</li> <li>◆ Providing training to faculty members to update their existing knowledge-base.</li> </ul>
<input type="checkbox"/> <b>Industry Interaction / Collaboration</b> <ul style="list-style-type: none"> <li>• Signing of MoUs with industries for research projects, Consultancy, Placement, Internship, Interactive sessions like seminars, webinars and workshops take place.</li> <li>• Mutually-beneficial activities(based on the MoUs) are organised in every department every semester.</li> </ul>
<input type="checkbox"/> <b>Admission of Students</b> <ul style="list-style-type: none"> <li>• The students are admitted according to the Anna norms of the statutory bodies.</li> <li>• Admission of students to various programmes is done through a Single Window System (SWS) and Management Quota System (MQS). Admission through SWS is done by the Tamilnadu State Engineering Admissions Committee and MQS is also based on merit following the norms prescribed by to Anna University and Government of Tamilnadu.</li> <li>• Government Allotment is followed for 65% of the sanctioned strength as per government norms and 35% of the total seats are filled under management quota.</li> <li>◆ College website, Prospectus and Handbook contain information about the Institution and the programmes offered.</li> <li>◆ Prospectus highlighting the details of various programmes of the college is prepared every year prior to the commencement of admissions.</li> <li>◆ Prospectus gives details of eligibility norms for admission. It is given to the applicants along with the application forms.</li> </ul>
<b>6.2.2 : Implementation of e-governance in areas of operations:</b>
<b>❖ Planning and Development</b> Implemented SMS system for dissemination of information including regular notice to all stakeholders. Setting up virtual learning system through Skype from distant corners of the world Implementation of college Mobile apps.
<b>❖ Administration</b> Administration of the college follows E-governance system at all levels. College has Biometric attendance systems for teaching and non-teaching staff. The college campus is equipped with CCTV Cameras at all vantage points.
<b>❖ Finance and Accounts</b> The college uses the Impres-ERP software for E-governance for transparent functioning of Finance and Accounts department of the college. This helps to increase the efficiency of the staff towards and ensures accuracy in financial transactions. The college conducts regular audit of annual books of accounts. The administrative office keeps all the financial records separately as per the events and transactions made for. The administrative office maintains the Books of Accounts properly which helps in the auditing procedure.
<b>❖ Student Admission and Support</b> <ul style="list-style-type: none"> <li>• Admission committee is normally formed to scrutinize the process of admission.</li> <li>• The admission process springs during the month of March/April and advertisements are published in local, regional, and are broadcasted in local channels / FM radios.</li> <li>• The college ensures that all the rules, regulations and eligibility criteria prescribed by the government / Anna University are adhered to.</li> </ul>

- Information regarding admission process, programmes offered etc., is published through college website and brochures.
- A Prospectus that highlights the details of various programmes offered by the college is prepared every year prior to the commencement of admissions.
- Scholarships/Concessions are provided to students based on the norms specified in the brochure.
- A help desk is set up during admissions for providing information relating to admission process.

#### ❖ Examination

The college has a separate Examination Cell with equipped IT tools necessary for the examination purpose. As per the requirement of the examination cell, all the necessary equipment are provided by the college such as separate desktop and internet facility for online process of downloading and further activities related to examination purpose. The examination cell has a separate machine for printing the hall ticket downloaded from university portal.

### 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 Rupees)
2017- 2018	V.Murugesh Department of Civil	Design and detailing of Earthquake resistant structures, from 07.12.2017 to 20.12.2017		500
	J.Praveenkumar Department of Petrochemical Engineering	FDP on Process instrumentation dynamics & control from 22.11.2017 to 29.11.2017, at Alagappa College of Technology, Chennai.		3000
	Dr.R.Perumal, department of Petrochemical Engineering	Emerging synergies in agriculture. Food processing engineering and biotechnology, from 21-02- 2018 to 23-02-2018, at Karunya Institute of Technology and Sciences, Coimbatore		2000
	Dr.S.Kavitha, Department of Petrochemical Engineering			2000
	B Janani, Department of	Emerging synergies in agriculture. Food		2000

Petrochemical Engineering	processing engineering and biotechnology, from 21-02-2018 to 23-02-2018, at Karunya Institute of Technology and Sciences, Coimbatore		
Dr.R.Paramasivam	Seminar on Art of writing research paper and proposal for research funding on 11-08-2017 at Sri Ramakrishna Engineering College, Coimbatore.		500
Dr. A.Thirumurugan Department of Civil	International conference on civil, mechanical, chemical engineering & technologies, from 23-02-2018 and 24-02-2018		2000
Muruges.V Department of Civil	Recent advancements in Civil Engineering 9 <sup>th</sup> annual research congress, on 15-03-2018 Karpagam Academy of higher education		2000
Lavanya.L Department of Civil	International conference on civil, mechanical, chemical engineering & technologies, from 23-02-2018 and 24-02-2018		2000
Muruges.V Department of Civil	FDP on Design and detailing of Earthquake resistant structures, from 07.12.2017 to 20.12.2017, at Kumaraguru college of technology		500
Aruna.C Department of Civil	FDP on Design and detailing of Earthquake resistant structures, from 07.12.2017 to 20.12.2017, at Kumaraguru college of technology		500
Sellakannu.N Department of Civil	FDP on Design and detailing of Earthquake resistant structures, from		500



Lavanya.L Department of Civil	07.12.2017 to 20.12.2017, at Kumaraguru college of technology		500
Balachandhiran.P			500
Niranjani.S Department of Civil			500
Balachandhiran.P Department of Civil	FDP on Autodesk Autocad, from 16.04.2018 to 20.04.2018, Sri Krishna College of Technology		1000
Kumar.A Department of Civil	Workshop on Disaster Management And Safety Engineering,from 09-03- 2018 to 10-03-2018, at Akshaya college of Engineering and technology		500
C.Prakash Department of EEE	FDP on Solid state drives, From 4/12/2017 to 10/12/2017, Sri Guru Institute of Technology		500
C.Sakthivel, Department of EEE	Power system operation and control, from 20/11/2017 to 27/11/2017, M.P.Nachimuthu M.Jaganathan Engineering college		500
C.Sakthivel Department of EEE	Electrical Machines –II, from 23/5/2018 to 29/5/2018, SNS College of Technology		500
S.Pradeep Kumar Department of EEE	Electrical Machines –II, from 23/5/2018 to 29/5/2018, SNS College of Technology		500
P.Sam Jasper Department of EEE			500
V.Kumaresan, Department of EEE	FDP on Solid state drives, From 4/12/2017 to 10/12/2017, Sri Guru Institute of Technology		500

	T.KARNESH Department of Mechanical	FDP on Mechatronics, Hindusthan College of Engineering And Technology, Coimbatore  From 12.05.2017 to 18.05.2017		500
	V.KAVINRAJ Department of Mechanical	FDP on Engineering Mechanics , Nandha College of Technology, Erode  From 27.11.2017 to 04.12.2017		500
	P.SATISH KUMAR Department of Mechanical	FDP on Strength Of Materials, Kongu College of Engineering, Erode  From 07.05.2017 to 13..05.2017		500
	R.MALAIRAJA Department of Mechanical	FDP on Me 6604 – Gas Dynamics of Jet Propulsion K.S.R College of Engineering, Tiruchengode  From 04.12.2017 to 10.12.2017		500
	G.RAJBHARATHKRISHNAN Department of Mechanical	FDP on Machine Learning Techniques For Manufacturing Optimization Thiagarajar College of Engineering From 14.12.2017 to 20.12.2017		500
	K.KARTHIK Department of Mechanical	FDP on Me 6403 – Engineering Materials And Metallurgy Nehru Institute of Engineering And Technology, Coimbatore  From 29.11.2017 to 07.12.2017		500

K.Karthik Department of Mechanical	Surface Hardening Of AISI 1035 Steel Using Boriding on 28/04/17		1500
	Characterization Of AISI 1024 Steels		1500
S.Jayaprakash Department of Mechanical	Analysis of Coupling Defects in Dynamic and Static Condition on		1500
P. Satish kumar Department of Mechanical	Electro chemical machining		1500
J.Prabahar Department of Automobile	Faculty Development Programme , Firebird Institute of Research in Management  08.09.2017 to 09.09.2017		500
P.Suresh Kumar Department of Automobile	Faculty Development Programme , Firebird Institute of Research in Management  08.09.2017 to 09.09.2017		500
A.Vinodh Kumar Department of Automobile	Faculty Development Programme , Firebird Institute of Research in Management  08.09.2017 to 09.09.2017		500
S.Vigneshwaran Department of Automobile	Faculty Development Programme , Firebird Institute of Research in Management  08.09.2017 to 09.09.2017		500
K.Santhosh Department of Automobile			500
R.Gopinath Department of Automobile			500
V.Prakash			500

	Department of Automobile			
	S.Pradeep Department of Automobile	FDP on ME 6403 Engineering Materials and Metallurgy,  Nehru Institute of Engineering and Technology, Coimbatore. From 29.12.2016 to 07.01.2017		500
	P.Ravisankar	Two-Week FDP on ME 8493 Thermal Engineering-I, University College of Engineering, Villupuram. From 01.12.2018 to 12.12.2018		500
	PARAMESWARIA,	NATIONAL LEVEL WORKSHOP-HANDS ON TRAINING ON APPLICATIONS OF IOT AND WIRELESS SENSOR NETWORKS USING N-MOTE EMBEDDED PLATFORM AND ZOLERTIA DEVICE from 7.9.2017-9.9.2017, SRI RAMAKRISHNA ENGINEERING COLLEGE		500

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

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	Dates (from-to)	No. of participants (Teaching staff)	No. of participants (Non-teaching staff)
2017-2018		Dengue Awareness	2.11.2017	50	30
	-	Awareness program on Swachh Bharat Mission Gramin-SWACHH-ATHON 1.0	23.8.2017	20	25
	-	World Food Day Celebration	14.10.2017	80	10
	R&D Proposals to National and	-	30.11.2017	100	-

	International Funding for Researchers – Approach & Preparation				
	FDP-Instructional Model for Outcome based Education	-	04.06.2018 - 09.06.2018	52	-
	-	Drug and Traffic Awareness Program	10.02.2018	50	35
	-	Science Day Celebration-TALENT MINDS	28.2.2018	20	30
	-	Women Empowerment Cell celebrated International Women’s Day	8.3.2018	25	10

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)
FDP-Dynamics of Machines	15	10.6.2017
FDP-Attributes of a Teacher	25	19.6.2017
Hands On Training On Automotive Components	10	20.8.2018
FDP-Model Based System Design in Engineering Application and Research	20	07.9.2017
FDP-Teacher Qualities and Team Building	24	08.09.2017- 09.09.2017
FDP-Kinematics of Machinery	15	29.11.2017
FDP-Design and Analysis of Algorithms	20	24.11.2017- 30.11.2017
FDP-Introduction to R Programming	12	17.04.2018- 18.04.2018
Workshop on Hands on training on Pilot Distillation units	24	08/12/17 to 09/12/17
National Conference on Petroleum Conservation and environmental sustainability	24	27/3/18 to 28/3/18

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

Teaching		Non-teaching	
Permanent	Fulltime/temporary	Permanent	Fulltime/temporary
50	Fulltime	17	Full Time

6.3.5 Welfare schemes for

Teaching	<ul style="list-style-type: none"> <li>• Teaching faculty members pursuing Ph.D. and research activities are encouraged with On-duty and usage of infrastructural facilities in the campus for their research activity.</li> <li>• Financial support to faculty members for participation in Conferences / Seminar / Workshop in National and International Level Programmes.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Free medical facility in the campus.</li> <li>• Free Transport facilities, EPF and Group Insurance</li> <li>• Additional increments for acquiring higher qualifications</li> </ul>
Non teaching	<ul style="list-style-type: none"> <li>• Free Uniforms for supporting staff</li> <li>• Salary advance</li> <li>• Free Transport facilities, EPF, Group Insurance and Free medical facility in the campus.</li> </ul>
Students	<p>Encouragement to participate in Workshops/Seminars/Sports/Technical festivals</p> <p>Management Scholarship is given each year as given below</p> <ul style="list-style-type: none"> <li>• Sports scholarship</li> <li>• Merit cum means scholarship</li> <li>• Merit scholarship</li> <li>• Special scholarship</li> </ul> <p>Financial support for:</p> <ul style="list-style-type: none"> <li>• Student innovative projects</li> <li>• Student competition</li> <li>• Attending seminar and conferences</li> <li>• Appreciation prizes for meritorious students</li> </ul> <p>Lift Facility for Handicapped students.</p>

#### **6.4 Financial Management and Resource Mobilization**

##### **6.4.1 Institution conducts internal and external financial audits regularly**

(with in 100 words each)

Once in a year statutory audit is conducted by the professionals. If Audit is done by Government recognized Chartered Accountant. Internal audit is performed twice in a year.

Fee collected from students is the major source of revenue for the Institution. In addition, management is funding for capital expenses like new building and major equipments required if any. The audited income and expenditure statement for all the previous years are available with accounts section of the college. Excess fund required for the development is contributed by the management. Thus audit plays an important role in controlling the financial activities. The financial resources of the institute are managed in a very effective and foolproof manner. There is fully computerized accounts department in the institute.

Each and every transaction is supported by the vouchers. All the collections are in the bank and all expenditures, recurring and non-recurring, are incurred through cheques. Only duly authorized persons can operate the bank account. Department heads prepare the budget proposal based on their requirements and submit to the management every academic year. The top management reviews the budget proposals and approve accordingly. The purchase will be made strictly following the given budget proposal. If any deviation occurs in the budget, respective HODs have to address the issue and give justification so that subsequently the same will be approved. Following this procedure, unnecessary purchases are avoided and the available funds are effectively utilized.

The institution has a pre-defined mechanism for internal and external audit. Internal audit conducted by the internal auditor of the Institute. External audit conducted by the chartered accountant. At the end of every academic year stock of every department is verified by the team of faculty members from other departments who act as internal auditors. The qualified remarks if any, given by the auditor are taken into consideration for future course of actions.

##### **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
NIL				
6.4.2 Total corpus fund generated				
NIL				
<b>6.5 Internal Quality Assurance System</b>				
6.5.1 Whether Academic and Administrative Audit (AAA) has been done?				
Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	TUV (AUSTRIA)	Yes	IQAC
Administrative	Yes	TUV (AUSTRIA)	Yes	IQAC
6.5.2 Activities and support from the Parent – Teacher Association (at least three)				
<ul style="list-style-type: none"> <li>Principal had addressed the parents on the various facilities available for their wards such as sports, Co-curricular and extra-curricular activities, campus recruitment etc.</li> <li>Parents–Teachers Meeting is regularly conducted every semester where Parents express their grievances. Feedback is collected from the parents. Actions are taken accordingly.</li> <li>Apart from these meetings, needs of the parents are individually provided by the respective mentors as and when required.</li> <li>Students progress and attendance are send to parents thrice in a semester.</li> <li>Parents are always updated with the current happenings in the college through SMS, by calling them over phone and through Impres-ERP software and JCTAPP Mobile application.</li> </ul>				
6.5.3 Development programmes for support staff (at least three)				
<ol style="list-style-type: none"> <li>Organizing communication skills training.</li> <li>Soft skills training programmes.</li> <li>Technical staff to undergo training for new software and equipment.</li> <li>Yoga sessions are arranged to improve physical and mental fitness.</li> </ol>				
6.5.4 Post Accreditation initiative(s) (mention at least three)				
<ol style="list-style-type: none"> <li>Regular meeting of IQAC</li> <li>Teaching through ICT</li> <li>Students Mentoring</li> </ol>				
<b>6.5.5</b>				
a. Submission of Data for AISHE portal : (Yes/No)Yes				
b. Participation in NIRF : (Yes/No)Yes				
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

2017-2018	Teacher Qualities and Team Building	29.07.2017 – 30.07.2017	2017-2018	24
	Quality Research and Funding Opportunities	10.2.2018	2017-2018	120
	Lead Auditor Course (TUV- Austria, Conducted the training Programmer in ISO 9001:2015 Auditor Course)	23-03-2018 & 24-03-2018	2017-2018	100
	Outcome Based Accreditation for NBA	22.3.2018	2017-2018	55
	FDP on “Instructional Model for Outcome Based Education (NITTTR), Chennai	04.06. 2018 to 09.06.2018	2017-2018	52



## 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	Participants	
		Female	Male
Guest Lecture on " Discovering The Wings "	13/10/2017	200	-
Special Guest Lecture on " Women's Health and Beauty using Natures Food habits "	08/03/2018	250	-

#### 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

Environment Conservation Initiatives:

- Dense plantation and landscaping on the campus
- Hazardous waste managed safely
- Eco-friendly papers used for documentation
- Researches focusing on preserving the environment
- Segregation of waste at source.
- Awareness to the staff and students on environment cleanliness.
- Regular participation in Swatchatha Seva initiatives of the Government of India and AICTE.

7.1.3 Differently abled (Divyangjan) friendliness		
Items Facilities	Yes/No	No. of Beneficiaries
Physical facilities	Yes	All
Provision for lift	Yes	All
Ramp/ Rails	Yes	All
Braille Software/facilities	No	Not Applicable

Rest Rooms	Yes	All
Scribes for examination	Yes	Nil
Special skill development for differently abled students	-	-
Any other similar facility	-	-

<b>7.1.4 Inclusion and Situatedness</b>						
<b>Enlist most important initiatives taken to address locational advantages and disadvantages during the year</b>						
Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date and duration of the initiative	Name of the initiative	Issues addressed	Number of participating students and staff
2017-2018	5	5	13.07.2017 to 14.07.2017	Dengue Awareness Programme	Precautions steps to be taken against Dengue	75
			23.08.2017	“Swachh Bharat Mission Gramin-Swachh-A-Thon 1.0”	Awareness Programme on Swachh Bharat Mission	150
			02.11.2017	Dengue Awareness Programme	Precautions steps to be taken against Dengue	120

			25.01.2018	Free Eye Checkup Camp	For eye check up	550
			10.02.2018	Seminar on “Drug And Traffic Awareness Program”	To create awareness on traffic rules	300

### 7.1.5 Human Values and Professional Ethics

Code of conduct (handbooks) for various stakeholders:

Title	Date of Publication
HR Manual	Revised Edition on 28.09.2018
ERP Management	-

#### 1. HR Manual:-

Existing HR Manual was revised to make all stakeholders of JCT College of Engineering to be aware of the rules and regulations that governs the institute. This manual gives the ‘Code of Conduct’ to be followed by staff and students. It details the procedures to be followed by the institute for recruitment of staff. The HR manual explains staff promotional and leaves policies. Also, it provides roles and responsibilities of all stakeholders.

#### Code of Conduct

Every employee shall:

- Maintain at all times absolute integrity and sincere devotion to duty and loyalty to the institution and shall do nothing that would or is likely to tarnish the image or reputation of the institution, or adversely affect its interests.
- Abide by and comply with the rules and regulations of the college and all orders and directions of his/her superior authorities, under whose administrative control, he/she is placed.

- Extend utmost courtesy and attention to all persons with whom he/she is to deal with in the course of discharge of his/her duties.
- Endeavour to promote the interest of the college and shall not act in any manner prejudicial thereto. Carry out duties and responsibilities assigned to his/her post and shall also carry out any other duty assigned to him/her from time to time.
- Maintain secrecy - Every employee shall maintain the utmost secrecy regarding the College, employment affairs and the affairs of its constituents and shall not divulge, directly or indirectly, any information of confidential nature either to a member of the public or to a staff of the college, unless compelled to do so by a judicial or other authority or unless instructed to do so by a superior officer in the discharge of his/her duties.
- An employee of the college shall strictly abide by any law relating to consumption of intoxicating drink or drug in any area in which he/she may happen to be for the time being and not to be under the influence of any intoxicating drink or drug during the course of the discharge of his/her duties.
- Employees shall abide by the rules and regulations of the Institution framed from time to time. Every employee shall employ himself/herself honestly, efficiently and diligently under the orders and instructions of their superiors under whom he/she shall, from time to time, be placed.
- He/she shall discharge all duties pertaining to the office diligently and as required. No information related to any individual / firm engaged with the Institution shall be divulged to any other employee of the Institute/ person / concern (relating to the Professional Fees / Salary / Perquisites, etc).
- No employee shall join, or continue to be a member of any association / organization / political party for the objectives or activities of which are prejudicial to the interests of the sovereignty and integrity of the country or public order or morality.
- If any question arises whether a party is a political party or whether any organization takes part in politics or whether any organization engages in activities prejudicial to the interests of the sovereignty and integrity of India or public order or morality, the college shall follow the decisions taken by the State Government / MHRD / AICTE / Anna University.

## 2. ERP Management:-

The predominant facility of the ERP system is information dissemination to all stakeholders. However, to ensure confidentiality and maintain integrity, role-based access controls have been provided.

- The Principal have access to the Placement module of the ERP software.
- The HODs can view Placement details of all students in their departments.
- The Placement Coordinators can view details of all students in their department.
- Students can view their respective Placement Performance.
- Parents can also view their ward's academic Placement Performance through ERP

### 7.1.6 Activities conducted for promotion of universal Values and Ethics

Activity	Duration (from- -----to--)	Number of participants
Entrepreneurship Awareness Camp	26.07.2017 to 28.07.2017	64
Awareness Program on Swachh Bharat Mission Gramin-Swachh-A-Thon 1.0	23.08.2017	150
Faculty Development Programme on “Teacher Qualities and Team Building”	08.09.2017 to 09.09.2017	150
Awareness Programme and Seminar on HIV/AIDS	30.11.2017	100
Seminar on “Environmental Issues and Management In Developed Countries and Career Opportunities”	23.01.2018	200
Free Eye Checkup Camp	25.01.2018	550
Seminar on “Drug and Traffic Awareness”	10.02.2018	300
National Level Workshop on “Repairs and Rehabilitation of Building and Green Building	20.02.2018	150

Concepts”		
International Women’s Day Celebration	08.03.2018	150
National Conference on “Nutritional Security through Research & Development In Food – Nutro’2018	23.03.2018	100
International Yoga Day Celebration	21.06.2018	150
Entrepreneurship Programme	30.06.2018	300

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

##### **➤ Energy Conservation**

Minimal consumption of energy is the saving factor of energy conservation in the campus. The notices near the switch boards prevent wastage of energy. The use of CFL bulbs instead of tungsten lamps, team and collaborative work in the same place, using open air gallery for conducting college level meetings and functions, classes on the open stage in pleasant weather and ward meetings under the trees reduce energy consumption. Observation of ‘Electricity Saving Day’ has educated our staff and students of the danger of natural resource depletion and the need for energy conservation

##### **➤ Use of renewable energy**

The identification of renewable, sustainable and affordable energy sources has been under survey to install ‘Solar Roof Top’ with 30 percent subsidy from the Government. Solar energy is one of the sources for lights, fans, heaters used in the residences and the college. Bathing water in the hostel is treated and used for drip irrigation in the flower gardens and orchards.

➤ **Water harvesting**

Arresting the water flow down the hillrock in the rainy season is a great challenge to the management. Rain water prevents soil erosion and enables to meet the water requirements partially. The rain water is channelized towards natural pond available inside the campus which raises the ground water level. Since the college well is much below the road level, water level rises in rainy season. Water analysis of the well water shows the reduction of Total Dissolved Solids (TDS) as a proof for the increase in the water level. Frugal use of water has ensured constant supply of water in the college.

➤ **Construction of mini Check Dam**

The natural blocks and the steps constructed on the slope of the hill arrest the speed of water flow at the college. The mini check dam not only prevents soil erosion but also stores water for different purposes like construction works and irrigation purposes. The college luckily has a natural check dam which serves for the raise of ground water level and availability of water all the seasons.

➤ **Efforts for Carbon neutrality**

Proper measures have been taken to reduce carbon emission to keep the campus, pollution-free and uncontaminated. Our college buses and the buses from the State owned Transport Corporation buses fetch students and staff to the college this avoid use of individual vehicles. Our college buses and other vehicles are periodically checked by the Transport authorities and provided with (CNG) pollution-free stickers. Private buses are forbidden from entering our college premises. Share auto system is used by staff for transport and conveyance. Carbon emission is minimized and neutralized by Nerium pathways at the entrance of the college. Planting a variety of trees and kitchen gardens have contributed to carbon neutrality in the campus.

➤ **Plantation**

The Lush green environment of the college is largely due to tree plantation. There are about 300 trees of various kinds in the campus. Trees have nearly covered 2/3 of the college area. They help to maintain the ecosystem. Planting of saplings by the students on various functions evinces the eco-consciousness inherent in the college practices. Planting a large number of trees in the adopted villages is one of the regular features of the NSS Special Camps.

➤ **E-waste management**

Electronic goods are put to optimum use; the minor repairs are set right by the staff and the Laboratory assistants; and the major repairs, by the professional technicians, and are reused. The damaged computers are used by the instructors in the practical sessions of the ‘Certificate Course in Computer Maintenance and Hardware. Finally, they are exchanged with the local dealers. UPS Batteries are recharged / repaired / exchanged by the suppliers. When they fall out of use, they are handed over to the agent of the suppliers of electronic equipments.

## **7.2 Best Practices**

### **Best Practices –1**

#### **1. Title of the Practice – Empowered, Participative and Transparent Governance through Impres-Institutional Management Software/System**

The major challenge with any institution is the timely availability of data for decision making purposes. To overcome this challenge, JCT has invested in an institution ERP which can be accessed both via intranet and internet. The ERP software is user friendly and comes with a lot of security features. This ERP tool has been implemented for the past two years and has helped in improving the productivity of the institution.

Many modules of the ERP software have been customized with specific inputs from JCT and a few are listed below.



### **Performance Module**

- Used to record all the activities of the departments with facility to upload all the supporting documents of the activities.
- Facility to capture the achievement of our faculty members like journal publications, patents filed participation in workshops etc.
- Feature to record performance of our students in co-curricular and extra-curricular activities.

### **Academic Module**

- To easily compute graduation pass percentage of each batch of students.
- To compute semester-wise pass percentage in the First<sup>t</sup> attempt and also the current pass percentage for all the semesters for each batch.
- To Compute mean CGPA of all successful students of every batch.
- To Generate list of students who have secured above a specified CGPA.

### **Billing Module**

- Automatic SMS of daily fee collection to the management.
- Reminder SMS to the fee defaulters.

### **Placement Module**

The complete module with the

- Database of potential recruiting companies,
- Database of students details
- Database of placed, non placed and not interested students
- Various comparison reports of placements with the previous years

## **2. Goal**

- The goal of the ERP software is to automate all the administrative procedures related to Academics, Student Management, Staff Management, Library Management, Hostel Management, Transport Management, HR Management and Finance Management, Collect and Store all the required data in a centralized manner for easy retrieval. With constant input provided by JCT for customization requirements, the ERP has today taken the shape of End-to-End Campus Management Software.

- The major objective behind implementing the ERP system is to move towards a paperless office at JCT and to improve the overall productivity.

- This practice was introduced during July 2015 with the above stated goals in focus and the institution witnessed a paradigm shift in the efficiency of the academic activities within a short span.

### **3. The Context**

- Effective and End-to-End Campus Management.

### **4. The Practice**

- The ERP software is hosted with role based access, both on internet and intranet for easy access from anywhere.

- The main feature of this System is the ease of access to information regarding status of each and every student to all academic stakeholders including Principal, Deans, Heads of Departments, Faculty, Tutors, and Class Advisors, Chairpersons of Class Committees, Officials at the Administrative Office, Central Library Staff, Parents and Students.

- The ERP system has a feature of time line-based locking of entries which forces the faculty to post all periodic entries from daily attendance, syllabus coverage, assessments marks etc. on time.

- The system helps the respective process owners in quick dissemination of information.

- The status of late comers, missing attendance entry, mark entry at the department level allows the HoDs to undertake necessary follow up actions.

- The availability of academic records, leave reasons etc. of the students help the faculty to provide proper guidance and counselling.
- The ERP system has a lot of features to ensure confidentiality. For each staff, their staff code and password are mandatory to login.
- Staff Fingerprint Biometric based attendance marking.
- Online Pay Slip and Attendance/Mark entries.
- Course Plan, Daily Attendance, Syllabus Coverage, Time Table, Alternative Class Arrangements, Mark Entries and Analysis (Staff wise / Subject-Wise / Student-Wise / Test - Wise).
- The class advisors can generate and/or Export in Excel format, the following reports right from their work place:
  - i. Monthly Attendance, Cumulative Attendance Day wise report, Hourly report.
  - ii. Strength report (Seat category wise / Gender wise / Community wise / Locality wise etc.)
  - iii. University / Internal Assessment Test Result Analysis (% of Pass, Range of marks, subject wise failure details, No. of ranks, etc.).
  - iv. SMS alerts and Progress reports to parents (Letter /email / SMS).
- OPAC search of central library, smart card based issue/return and e-Gate entry at the library.
- Hostel Infrastructure, Room allotment, Visibility of the profile of the hostellers to the wardens.
- For the day scholars who avail college bus facility, their place of boarding and yearly/ half-yearly transport fee details are maintained by the ERP.
- The allotted route and stage are provided in Bus-Pass.
- Vehicle maintenance, Alerts for FC / License renewals, Transport Pass Issue (Stage wise), Timings at stages, and SMS alerts for change in transportation, GPRS vehicle tracking system which assures high security and status of the transport system.

- The ERP has a Performance Module which helps the HoDs to plan, execute and track the various activities of the departments.

### **5. Availability of Information -All Stakeholders**

- The predominant facility of the ERP system is information dissemination by all stakeholders. However, to ensure confidentiality and maintain integrity, role-based access controls have been provided.

- The Principal has access to all the modules of the software.

- The HoDs can view details of all students in their departments.

- The Faculty members can view details of all students in the class for the courses

Handled by them (both theory / laboratory).

- Students can view all their respective academic performance and achievements

- Parents can also view their ward's academic performance and achievements through ERP.

### **6. Evidence of Success**

- Enormous amount of time and effort is saved by using the ERP system because of the availability of the required data at all the time. The faculty are able to spare the saved time in other productive activities.

- Because of bringing in systems across the institution, JCT is able to save substantial money through optimization of various procurement activities.

- Better tracking of payments to be made to the vendors is evident because of the linking of the complete chain of transactions.

- Students and Parents feel comfortable with the system

- The linking between admission, fees payment, academic courses, departments, placement and examination modules of the ERP prevents unnecessary data entry, removes redundant data entry and results in saving of effort and increases accuracy of data

- Management is able to get the data on all activities of the college on real time basis from anywhere which helps in decision making process

## **7. Problems Encountered and Resources Required**

JCT has received excellent support from the vendor of the ERP software and as such has not encountered any major problem, except non-availability of the system owing to network issues at times.

### **Best Practices –2**

#### **Title of the Practice- Students Mentoring and Counselling for continuous improvement.**

Type of Mentoring	:	Professional Guidance / Career Advancement / Course work Specific/ Lab specific / total development
No. of Faculty Mentors	:	All the Faculty members
No. of Students	:	Maximum 15 per mentor
Frequency of meeting	:	Monthly and need based

- Effective Student mentoring system has already been implemented in our college.
- All the students of the college are coming under this system from the date of joining the college.
- A complete track of the student activities like Academic, Curricular, Co curricular Extra Curricular achievements, Social activities and the details of Parent Meetings are registered in the system.
- A Mentoring Register has been distributed to all the staffs of the college. Each staff is allocated with 10- 15 students under the mentoring system.
- Faculties will have a meeting with the students periodically and their Academic progress and all his activities are discussed and noted in the register
- Any discrepancies in the student behavior like Attendance , etc will be questioned and will be counseled with care
- Staff will be submitting the register to the Head of the Department

- The HoD will scrutinize any noted student and advise them for corrective action

### **7.3 Institutional Distinctiveness**

- Students and Faculty members are from Tamil Nadu and Kerala, since the institution is located in the border of two states.
- Special programmes like Food Technology, Petroleum Engineering and Petrochemical Engineering are being offered.
- Four programmes are NBA accredited and the institution is NAAC Accredited.
- To substantiate the vision of the college, that is to promote quality education and employment to all.
- The college offers number of concessions and scholarships for the economically poor students to pursue their higher education in the college.
- The Governing council and the College Development Council give much importance to the development and betterment of the college education.
- The management inspires the Principal, all the HoDs, staff and students towards fulfillment of the stated vision and mission.
- Management discusses in its regular meetings the academic, administrative plan, policy and implementation.
- The college fulfills all the requirements of departments like infrastructure, library, building and extension.
- Management offers concessions to economically poor students and scholarships to student achievers.
- The management implements all the decisions taken in the IQAC meetings with stake holders for the enhancement of quality assurance and sustenance in all areas of academic performance of the institution.
- The discussion and decision with regard to the curricular programmes in tune with Vision and Mission of the Institution taken by various academic bodies are communicated effectively to all students, Teaching and Non-teaching staff of the college through circulars / notices / emails / sms alerts.

## **8. Future Plans of action for next academic year**

- Increase University rank.
- Faculty members and students are motivated to publish research papers
- Faculty members and students are motivated to do higher studies.
- Participation of students in national/inter-national events.
- Train the students in upcoming technologies to meet industry expectations.
- Apply for Funded projects to various 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.
- Students are motivated to involve in social relevant projects and activities.
- Organize environmental awareness, personality development and entrepreneurship development programmes.