



## Yearly Status Report - 2018-2019

### Part A

#### Data of the Institution

<b>1. Name of the Institution</b>		CITY ENGINEERING COLLEGE
Name of the head of the Institution		V. S. RAMAMURHTY
Designation		Principal
Does the Institution function from own campus		Yes
Phone no/Alternate Phone no.		08022560314
Mobile no.		9480560140
Registered Email		principal@cityengineeringcollege.ac.in
Alternate Email		cityengineering123@gmail.com
Address		City Engineering College, Doddakallasandra, Beside Gokulam Apartments, Off Kanakapura road, Bangalore-61.
City/Town		Bengaluru
State/UT		Karnataka

Pincode	560061																		
<b>2. Institutional Status</b>																			
Affiliated / Constituent	Affiliated																		
Type of Institution	Co-education																		
Location	Urban																		
Financial Status	private																		
Name of the IQAC co-ordinator/Director	Dr.Jyothi.P																		
Phone no/Alternate Phone no.	08022560313																		
Mobile no.	6366418866																		
Registered Email	viceprincipal@cityengineeringcollege.ac.in																		
Alternate Email	cityengineering123@gmail.com																		
<b>3. Website Address</b>																			
Web-link of the AQAR: (Previous Academic Year)	<a href="https://cityengineeringcollege.ac.in/aqac">_https://cityengineeringcollege.ac.in/aqac</a>																		
<b>4. Whether Academic Calendar prepared during the year</b>	Yes																		
if yes,whether it is uploaded in the institutional website: Weblink :	<a href="http://cityengineeringcollege.ac.in/cec-academic-calender/">http://cityengineeringcollege.ac.in/cec-academic-calender/</a>																		
<b>5. Accrediation Details</b>																			
<table border="1"> <thead> <tr> <th rowspan="2">Cycle</th> <th rowspan="2">Grade</th> <th rowspan="2">CGPA</th> <th rowspan="2">Year of Accrediation</th> <th colspan="2">Validity</th> </tr> <tr> <th>Period From</th> <th>Period To</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>B+</td> <td>2.58</td> <td>2019</td> <td>01-May-2019</td> <td>30-Apr-2024</td> </tr> </tbody> </table>						Cycle	Grade	CGPA	Year of Accrediation	Validity		Period From	Period To	1	B+	2.58	2019	01-May-2019	30-Apr-2024
Cycle	Grade	CGPA	Year of Accrediation	Validity															
				Period From	Period To														
1	B+	2.58	2019	01-May-2019	30-Apr-2024														
<b>6. Date of Establishment of IQAC</b>	09-Jan-2019																		
<b>7. Internal Quality Assurance System</b>																			
<table border="1"> <tr> <td>Quality initiatives by IQAC during the year for promoting quality culture</td> </tr> </table>						Quality initiatives by IQAC during the year for promoting quality culture													
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
Project exhibition	17-May-2019 2	900
<a href="#">View File</a>		

**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
CEC/MECH/Dr.Uma	RGS/F	VGST	2018 365	500000
CEC/MECH/students	VTU project funding	VTU	2018 365	5000
CEC/CIVIL/students	VTU project funding	VTU	2018 365	5000
CEC/ECE/students	VTU projects	VTU	2018 365	5000
CEC/CSE/students	VTU projects	VTU	2018 365	5000
<a href="#">View File</a>				

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

Yes

Upload latest notification of formation of IQAC

[View File](#)

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

7

The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website

Yes

Upload the minutes of meeting and action taken report

[View File](#)

**11. Whether IQAC received funding from any of the funding agency to support its activities during the year?**

No

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

1.CONDUCTION OF PROJECT EXHIBITIONS to explore the practical knowledge of students. 2.Digital Medium of instruction (PPTs, Videos) is used in classrooms, seminars and laboratories.

3. Regular industrial visits are organized in the department wherein the students

are taken to various industries relevant to the course.

4. Encouraging the students to use open course contents like NPTEL, apps like EDMODO, CLASS MAKER, BACKBOARD, MOODLE and other such materials. EDUSAT CDs which help students to engage in e-learning activities. Google Class room, Flip class helps the students to get motivated in learning

5. Expert lectures are organized by the respective faculty to bridge the gap between the curriculum and industry requirements

[View File](#)

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

Plan of Action	Achivements/Outcomes
Encouraging students to use open courses like NPTEL, EDMODO etc.	Improved performance after the usage
Conduction of tutorial classes for the improvement of results	Improved performance
Upgradation of technical skills of staff members by sending to conferences, workshops	Results in up gradation of knowledge
Effective mentor system	Improved performance in counselled students
Project exhibition	exploring the practical experience
<a href="#">View File</a>	

**14. Whether AQAR was placed before statutory body ?**

No

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

Yes

Date of Visit

28-Feb-2019

**16. Whether institutional data submitted to AISHE:**

Yes

Year of Submission

2019

Date of Submission

28-Feb-2019

**17. Does the Institution have Management Information System ?**

Yes

<p>If yes, give a brief description and a list of modules currently operational (maximum 500 words)</p>	<p>ERP system: ERP software which is used by all staff members, students and parents. It is useful for updating attendance on daily basis, uploading internal marks, notes, study materials, lesson plan, syllabus of the subjects. Parents and students are receiving the regular messages regarding their absence, notifications of the college activities, marks, notes, study materials, question banks, old papers etc. Students are given login id and password and they can use their login id and password and they can access the notes, marks, notifications, question bank, question papers and they can download it if required. Faculty details and student details are available in this Management Information System</p>
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## 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 City Engineering College (CEC) follows the curriculum designed by Visvesvaraya Technological University (VTU), Belagavi, Karnataka. Well before a semester begins, several steps are taken in order to ensure effective curriculum delivery. The Principal conducts a preliminary IQAC meeting where all the HODs present their PPTs on results analysis, remedial measures, activities planned, academic and budget requirements for the coming semester. Principal discusses and decides on the comprehensive requirements, prepares Budget, conducts purchase committee meeting and proceeds with final approvals. The College Academic Calendar of Events is prepared. The Programme level Subject (Course) Meetings are conducted to allot Subjects (courses) to the faculty and to decide on the faculty work load. Library committee considers requirements for procuring Books and Journals. The Curriculum Delivery is planned by preparing time table, notes, study materials, assignments and question bank, which are updated to Enterprise Resource Planning (ERP) portal. Orientation Program/Induction program is conducted at the beginning of academic year to all the newly admitted students. Faculty members are assigned responsibilities for conducting the Curricular, Co-curricular and Extra-curricular activities. At the beginning of each semester, faculty members are required to prepare lesson plan and study materials well in advance in accordance with the calendar of events for their respective programmes. The Students are provided with log-in passwords to access ERP portal for the syllabus, question papers, notes, NPTEL (National Program on Technology Enhanced Learning) materials, PPTs, lab manuals and videos for each course. The teachers plan for innovative teaching methods such as PPT presentations, assignments, discussions, workshops, seminars, Quiz, Surprise test, peer learning, group discussion and industrial visits. Apart from the regular lecture sessions, each department has technical club to motivate students to showcase their talents. The Principal (IQAC Chairman) and HODs (IQAC Members) monitor the academic activities and teaching-learning process on a regular

basis to ensure the curriculum delivery as per the timetable, and academic calendar of events. An Exam committee is formed at the institute level which is responsible for Strict conduction of Continuous Internal Evaluation (CIE) Tests and Semester End Examination (SEE) . Principal notifies last date for evaluation and display of Blue books for finalisation of each CIE Test marks. The Parents are informed about their wards attendance and CIE performance through ERP portal on a regular basis. The Principal ensures effective implementation of the planned curriculum through regular review meetings, parent meetings and feedback . All the test papers and assignments are stricly evaluated and marks statements are prepared. Based on the results and proctors feedback, slow learners are identified for remedial action. Students counseling is conducted for better understanding and encouraging academic performance levels. For a group of around 20 students a teacher is allocated as Mentor who does the counseling of students. As remedial measure, Bridge courses are conducted for lateral entry students to help them understand basic concepts of Mathematics. Students Feedback is taken analyzed and necessary action is initiated. Online grievance redressal mechanism has been active for registering and follow up of students and staff grievances.

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

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employ ability/entreprene urship	Skill Development
nil	nil	01/08/2018	0	nil	nil

### 1.2 – Academic Flexibility

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

Programme/Course	Programme Specialization	Dates of Introduction
BE	nil	01/08/2018
<a href="#">View File</a>		

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

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BE	nil	01/08/2018

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

	Certificate	Diploma Course
Number of Students	Nil	Nil

### 1.3 – Curriculum Enrichment

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

Value Added Courses	Date of Introduction	Number of Students Enrolled
nil	01/08/2018	Nil
<a href="#">View File</a>		

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

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BE	CSE	129
BE	ECE	48

BE	MECH	52
BE	CV	57
<a href="#">View File</a>		

## 1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	Yes

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

Feedback Obtained
<p>Feedback processes of the institution may be classified as follows in all: A. Feedback collected from students B. analysed and calculate the percentage C. action taken Fee back form is distributed to all the students and different parameters were mentioned in the form to evaluate. Following Parameters are considered for the evaluation of the performance of the teaching faculty. 1.How do you rate the teacher regularity in taking classes 2.Is the faculty able to explain the concepts/derivations/problems clearly. 3.Is sthe faculty slow in covering the syllabus contents 4.Is the faculty answering or clarifying the subject doubts 5.Is the faculty giving class notes sufficient to ensure a pass? 6.Whether the faculty has the subject knowledge 7.Is there effective black board usage. 8.Usage of PPT models to explain concepts 9.Whether faculty voice is audible and clear? 10.How do you rate the teacher performance over all Each question carries 4 marks and total marks is 40 per teacher. Studentsx40 will be the total marks Teacher's total marksx100 /total marks gives the percentage Action taken: Principal conducted a meeting and gives suggestions for the improvement of the individual faculty member after the evaluation. And instructed to put more effort to improve their performance of the individual and asks explanation if performance is very poor. HOD's also suggested some improvement strategies to their faculty members and faculty with good feedback are appreciated by the Principal.</p>

## CRITERION II – TEACHING- LEARNING AND EVALUATION

### 2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
BE	CV	480	280	167
BE	Mech	480	300	154
BE	ECE	720	400	195
BE	CSE	720	800	475
<a href="#">View File</a>				

### 2.2 – Catering to Student Diversity

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

Year	Number of	Number of	Number of	Number of	Number of
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	students enrolled in the institution (UG)	students enrolled in the institution (PG)	fulltime teachers available in the institution teaching only UG courses	fulltime teachers available in the institution teaching only PG courses	teachers teaching both UG and PG courses
2018	995	6	97	3	100

## 2.3 – Teaching - Learning Process

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

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Number of smart classrooms	E-resources and techniques used
100	100	13	15	15	20

[View File of ICT Tools and resources](#)

[View File of E-resources and techniques used](#)

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

The Counseling services in City Engineering College are part of the academic requirements of VTU. To achieve the goal of the institution to the fullest level, the guidance and counseling services are essential. CEC Counselling centre undertaken the following activities for the improvement of student community with the help of faculty members. Students' counselling is an important regular activity in the college which is aimed at fostering and nurturing students to excel in academics and to help them for their overall development. This activity provides support and guidance for the academic excellence and other issues being faced by the students. Counselling is not about giving advice but offers a space to discuss about their difficulties and thinking about future prospects. Students from one division are divided into three groups and a faculty member is assigned as a counsellor in each group. Each faculty counsellor is allotted 20-25 students and the counsellor arranges three counselling sessions in each semester. Counselling form of each student is maintained this helps to understand his performance behavior etc. Faculty tries to develop a coherent student-counsellor relationship and students can interact freely with the counsellor to discuss about academic excellence and future prospects. Students are encouraged to express their views and suggestions for academic and other infrastructural improvements in the college. The Principal and Head of the Departments take necessary actions to implement their valid suggestions. The counsellor collects all the details pertaining to the students and keeps a record of attendance of all the courses of the counselling group. Time to time, the attendance reports are communicated to the parents (three times per semester). The report comprises of theory attendance, practical/ tutorial attendance and mid semester marks. Parents can contact the counsellor at any time. The counsellors will arrange meeting with parents whenever they find any need such as the attendance is excessively low or poor performance in the examinations etc. For the smooth functioning of this activity each department has department coordinator and an overall coordinator in the college. Principal and Head of the Departments take necessary actions for the suggestions/issues raised during the counselling sessions. Parents meeting is one of the counselling methods and we do conduct Parents teacher meeting frequently to keep the update of their academics, behaviour, attendance etc. Separate parents meeting file is maintained in each department. HOD's oversee the overall activities

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
1001	100	1:10

## 2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
121	100	21	9	16

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National,



International level from Government, recognised bodies during the year )

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2019	Dr. Shalini Prasad	Professor	Doctoral degree in Electronics and communication
2019	Dr. Jyothi.P	Professor	Doctoral degree in Mathematics

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## 2.5 – Evaluation Process and Reforms

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

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
Mtech	CSE	All	15/06/2019	31/08/2019
BE	CV	All	25/05/2019	03/08/2019
BE	ME	All	25/05/2019	03/08/2019
BE	ECE	All	25/05/2019	03/08/2019
BE	CSE	All	25/05/2019	03/08/2019

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

Following are the Reforms in CIE process at Institutional level. Three reforms worth mentioning are 1. On-line documentation of CIE marks, analysis and remedial action. 2. Providing logistic support to strict conduction of CIE Tests and evaluation. 3. Enhancing CIE marks for Practical Exams to 40 from 25. On-line capturing and consolidating of CIE marks using pupilpod software is done. The parents are intimated through SMS about their wards performance. About logistic support for CIE Tests, Institute follows a planned schedule with calendar of events which provides information on tests, test marks entry, holidays, Techno Cultural events etc. The institute maintains a well-coordinated examination cell through which internal tests are conducted smoothly. Internal evaluation is entirely the responsibility of the teacher teaching the course. However, the institute has ensured the credibility of the system by introducing various internal checks, and also by making it sufficiently transparent. A student is free to interact with the teacher and seek clarifications about the marks awarded in a particular test. In the beginning of the course, the Course outcomes(CO) are well communicated to the students. To evaluate traits such as the depth of students knowledge, skills, application of principles to problem solving, creativity, ability to communicate and ability to face unknown situations etc. Practical subjects/Lab tests are evaluated by distributing marks separately for record submission, conduction of experiment and viva-voce. Seminars for final year students are evaluated by panel of teachers. To value the project and project reports of final year students respective guides are allocated for a batch of two to four students. The internal test question paper is set for part of the syllabus covered until the test. Portions and pattern of the question paper is informed to the students by the subject teacher. CIE marks have been enhanced from 25 to

40 with a view to provide more of Practical Classes.As per CBCS 2015 scheme (20-80) the internal question paper is set for 40 marks which is later consolidated to 15 marks. Assignments carry 5 marks, total internal marks being 20. According to CBCS 2017 scheme (40-60) the internal question paper is set for 40 marks which is later consolidated to 30 marks. Assignments carry 10 marks, total internal marks being 40.The key/scheme of valuation is prepared by the subject teacher before evaluating the answer scripts. Three internal tests are conducted to evaluate the performance of students and the best out of two for 2015 scheme and all three internal tests are considered for 2017 scheme for the award of the internal marks. It covers the whole course and tests the student's ability to integrate and interlink the various concepts and tools of analysis to which they have been exposed. The internal marks are awarded based on internal test performance and assignment. The Institute maintains very strict, impartial, impersonal, confidential and vigilant conduct and administration of internal examination aided with in-house supervision, strictly adhering to University norms with regards to evaluation. The internal test marks are entered in pupilpod maintained by college.

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

As per the University stipulations, CIE Tests are conducted with specified intervals. Normally first Test shall be conducted after 6 weeks,Second Test after 12 weeks and third test after 18 weeks. These standard norms as per VTU are incorporated in to college Calendar of Events and are strictly adhered. Any rescheduling due to local/national bundhs or holidays declared gets notified and Tests are conducted accordingly. The Institution follows a planned schedule like academic calendar which provides information on tests, tech events, activities, holidays, etc. The academic calendar of the institute is planned well in advance based on the calendar provided by the university and the same is displayed on the notice boards for the benefit of the students. The institute conducts CIE for all the branches in a centralized manner as per the academic calendar. If the CIE gets cancelled due to bandh, strikes etc. arrangements are made to conduct the internal exams on an alternate date and the same is intimated to all concerned through circulars.

## 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://cityengineeringcollege.ac.in/2-6/2-6-1/>

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
Nill	BE	CSE	111	108	97.27
Nill	BE	ECE	48	43	90
Nill	BE	CV	53	49	92.45
Nill	BE	MECH	51	48	94.12

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## 2.7 – Student Satisfaction Survey

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

### CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

#### 3.1 – Resource Mobilization for Research

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

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Minor Projects	365	VGST	5	5
Students Research Projects (Other than compulsory by the University)	365	VTU	0.02	0.02

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#### 3.2 – Innovation Ecosystem

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

Title of workshop/seminar	Name of the Dept.	Date
Work shop on internet of things	Electronics and Communication	29/09/2018
IOT work shop on internet of things	Electronics and Communication	06/10/2018
Work shop on CYPE software	Civil Engineering	14/03/2019
PCB workshop	Electronics and Communication	15/03/2019

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

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
Doctoral degree	Mrs. Shalini Prasad	Jain University	15/04/2019	Ph.D in Electronics
Doctoral degree	Mrs. Jyothi. P	Jain University	15/04/2019	Ph.D in Mathematics

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

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
Innovative projects	Innovative club	Management	Innovative club	collection of projects exhibited	14/12/2018

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#### 3.3 – Research Publications and Awards

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

State	National	International

0	0	0
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3.3.2 – Ph. Ds awarded during the year (applicable for PG College, Research Center)

Name of the Department	Number of PhD's Awarded
Electronics and communication	1
Basic Science(Mathematics)	1

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

Type	Department	Number of Publication	Average Impact Factor (if any)
International	CSE	7	4
International	MECH	3	3
International	ECE	1	3
International	Maths	1	3
International	chemistry	2	3.5

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

Department	Number of Publication
Chemistry	2
Mathematics	1
MECH	3
ECE	1
CSE	7

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

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
Goal programming model to budgetary allocation in garbage disposal plant	Dr.Jyothi.P	SPRINGER Nature Singapore Pte Ltd 2019', 'LOGISTICS, SUPPLY CHAIN AND FINANCIAL PREDICTIVE ANALYTICS, ASSET ANALYTICS	2019	3	City Engineering College	3
Diagnosis of Liver diseases	Dr.Deepak N R	Journal of Applied Science of Communicat	2019	5.6	City Engineering College	5

using ML		ion (JASC)				
Computational model to find energy dissipation optimization in smart phones	Dr. Shalini Prasad	Journal of advance research in dynamical control system	2018	4	City Engineering College	4
A study on hardness and wear behavior of Al-Cu/B4C composite by stir and squeeze casting with rolled composites	Dr. S. Karunakar	Journal of information source for manufacturing engineers and Technocrats,	2019	4	City Engineering College	3
Mechanical and Tribological Characterization of Aluminium-Hematite Composites,	Dr. S. Karunakar	Materials Today Proceedings	2018	3	City Engineering College	3
Detecting data leakage implementing security measures in cloud computing	Dr. Sowmya	IRJET (International Research Journal of Engineering Technology)	2018	4	City Engineering College	3
Network : A joint strategy framework for controlling Interference powerfull consumption on femto cell-in wireless	Dr. Sowmya	IJITEE (International Journal of Innovative Technology expanding Engineering)	2019	4	City Engineering College	3

system						
Framework for controlling Interference and power consumption on FEM TO CELL in wireless system	Dr.Sowmya	(Scopus indexed) Published as book chapter in Springer	2019	4	City Engineering College	4
Review of Existing Research contribution towards dimensional reduction methods in high dimensional data	Ambika P R	Springer Lecture notes on Data Engineering and Communication Technologies	2018	1	City Engineering College	1
Container based processing of large scale geospatial data	Ambika P R	International Journal of Creative Research Thoughts (IJ CRT)	2018	1	City Engineering College	1
<a href="#">View File</a>						

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

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
Diagnosis of Liver diseases using ML	Deepak N R	Journal of Applied Science of Communication (JASC)	2019	Nil	2	City Engineering College
Framework for controlling Interference and power consumption on FEM TO	Sowmya	(Scopus indexed) Published as book chapter in Springer	2019	1	1	City Engineering College

CELL in wireless system						
Traffic normalization and interference management in fem to cell-cellular	Sowmya	IRJET (International Research Journal of Engineering Technology)	2018	Nil	Nil	City Engineering College
Mechanical and Tribological Characterization of Aluminium-Hematite Composites	Dr.Karunakar	Materials Today Proceedings	2018	Nil	3	City Engineering College
Computational model to find energy dissipation optimization in smart phones	Dr.Shalini Prasadi	Journal of advance research in dynamical control system	2018	Nil	2	City Engineering College
A study on hardness and wear behavior of Al-Cu/B <sub>4</sub> C composite by stir and squeeze casting with rolled composites	Dr.Karunakar	Materials Today Proceedings	2018	Nil	1	City Engineering College
Influence of particle size distribution on Mechanical properties and microstructural evolution of Al-Cu /	Dr.Karunakar	Journal of information source for manufacturing engineers and Technocrats	2019	Nil	1	City Engineering College

Fly ash composite						
Detecting data leakage in implementing security measures in cloud computing	Sowmya	IRJET ( International Research Journal of Engineering Technology)	2018	Nil	Nil	City Engineering College
Network : A joint strategy framework for controlling Interference powerfull consumption on fem to cell- in wireless system	Sowmya	CIT - Journals of Computing Information Technology	2019	1	1	City Engineering College
Review of Existing Research contribution towards dimensional reduction methods in high dimensional data	Mrs. Ambika P.R	Springer Lecture notes on Data Engineering and Communication Technologies	2018	Nil	1	City Engineering College

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

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	Nil	26	Nil	Nil
Presented papers	7	2	Nil	Nil
Resource persons	Nil	Nil	Nil	Nil

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### 3.4 – Extension Activities

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

Title of the activities	Organising unit/agency/	Number of teachers	Number of students
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	collaborating agency	participated in such activities	participated in such activities
NSS Special Camp	NSS	10	50
Republic Day	NSS	5	20
The survey of Waste Disposal for Swachh Bengaluru Theme	NSS	4	40
Donated Daily needs for Kodagu Flood Victims.	NSS	10	50
International Yoga Day	NSS	4	40
Special camp	NSS	8	50
72nd Independence Day.	NSS	4	30
Blood Donation Camp	NSS	6	200
Ganesha Festival	NSS	10	100
International Women's Day	NSS	5	50
<a href="#">View File</a>			

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

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
nil	nil	nil	Nil
<a href="#">View File</a>			

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

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activities	Number of students participated in such activities
NSS Special Camp	NSS Ramanagar School	Improvement of School field	10	50
the survey of Waste Disposal for Swachh Bengaluru Theme	NSS, BBMP	survey	4	25
Donated Daily needs for Kodagu Flood Victims.	NSS , Management	donated funds to flood victims and required things to	10	50
Blood Donation Camp	NSS, Red cross unit	Blood donation	4	200
International Yoga Day	NSS , Art of living	Yoga and meditation	4	40

[View File](#)

### 3.5 – Collaborations

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

Nature of activity	Participant	Source of financial support	Duration
nil	0	0	0

[View File](#)

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

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
internship	industries for internship	HAL	25/07/2018	23/08/2018	46

[View File](#)

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

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
nil	01/08/2018	nil	Nil

[View File](#)

## CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 – Physical Facilities

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

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
220	155

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Value of the equipment purchased during the year (rs. in lakhs)	Newly Added
Laboratories	Newly Added
Others	Newly Added

[View File](#)

### 4.2 – Library as a Learning Resource

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

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation
LIB soft	Fully	10.0	2013

#### 4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
	e-Books	11111	3000000	Nil	600000	11111
e-Journals	1681	3000000	Nil	600000	1681	3600000

[View File](#)

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

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
nil	nil	nil	01/08/2018

[View File](#)

#### 4.3 – IT Infrastructure

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

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/GBPS)	Others
Existing	450	325	25	30	20	20	30	50	0
Added	15	5	2	1	1	2	4	0	0
Total	465	330	27	31	21	22	34	50	0

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

50 MBPS/ GBPS
---------------

##### 4.3.3 – Facility for e-content

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

#### 4.4 – Maintenance of Campus Infrastructure

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

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
90	83.45	85	79.44

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

The College is situated in a prime locality with very good transport facilities. This helps to have easy reach- out to the institution from all nooks and corners of the city. The college is situated on a sprawling 11 acres of lush green campus. Extraordinary infrastructure promotes a good teaching-learning environment. The institution comprises a total of 42 classrooms, 33

Engineering and Technology laboratories, 2 Basic science laboratories, 2 Auditoriums, 2 Seminar halls, Common workshop, Central library, Canteen facility, and In-house bank with 24hrs ATM facility and playgrounds. In addition to improve teaching learning process we have also established Basic Technology Lab. Most of the classrooms are equipped with LCD projectors and teaching aids facilitating an interactive environment to the students. A Research and Development room is provided to mechanical engineering department. The laboratories are very well designed and developed to meet the present day requirements and the available facilities completely satisfies the university prescribed syllabus. Each laboratory is equipped with sufficient number of required experimental setups. More than 400 computers on the campus are LAN connected and internet facilities are provided. The central library has been our most important part of the system involving effective functioning by both the teachers and students. Number of reference books and journals are the salient features of central library. All academic activities are carried out as per institutional calendar of events prepared based on VTU calendar of events.

Every department has dedicated laboratories and classrooms. Considering the contact hours of each course, classroom and laboratory utilization time table is planned by the departments. Time required for maintenance of the labs, time slots required for practice sessions and examinations are considered in time table planning in accordance with VTU requirements. Regular Classroom and laboratory sessions are conducted five and a half days a week. Every department has computer laboratories which are utilized for aptitude tests, project development and competitions. Students of all the departments utilize resources of mechanical workshop for their projects. The common facilities like auditoriums may be utilized by booking in advance. These can be used for conducting guest lectures, training, conferences and workshops. Faculty enrichment programs are regularly conducted which are mostly financed by govt. grants. The Institution also provides an impressive Placement and training department with facility for conducting Seminars, Group discussions and Interviews. Teaching-learning is further enhanced by providing E-SHIKSHANA Centre for e-learning. Sports Facilities: The college provides an adequate budget towards the expenditure of conduction of the events successfully. College is comprised of two play grounds out of which one being larger in size (7000 Sqm.) area facilitating activities such as cricket, football and athletics. The other play ground though small of 250 Sqm. area, but very well designed for the conduction of events like volley ball, hand ball, kabbadi and kokko. A separate facility is being planned for the conduction of indoor games such as chess, carom and table tennis. Facility is also provided for conduction of programs on yoga and meditation for faculty members by the expertise. The college plans for sports day and college day at the beginning of the semester and the students are well motivated to take part in various events. The students would exhibit their talents during the sports day assisted by sports coordinator as well as assigned faculty members. Some of the events could also be intercollegiate wherein other college students are allowed to take participation in the events. College staff is also motivated to take part in the sports events. The staff members are allowed to form intradepartmental teams and play the games. Lady faculties are motivated to take active participation in the events such as hand ball, throw ball, running and shot-put. Cultural Activities: The Institution conducts regular cultural events every year. The events are planned and conducted by the cultural coordinator Prof.Jyothi,HOD-Maths. Our students participate in competitions conducted by other Institutions and VTU. Competitions like Dance,Drama and Music are conducted for prize award during the college day. A display of the exhibits, including photographs, paper quilling art, canvas painting, pencil sketching, sculpture, rangoli, abstract paintings are also conducted. The student and faculty winners in the events would be honoured during college day program by the renowned personality as well as management representative mostly being the

**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	Nil	0	0
Financial Support from Other Sources			
a) National	SC/ST,OBC,KMDC	99	12167770
b) International	Nil	Nil	0
<a href="#">View File</a>			

## 5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
yoga and meditation training	27/08/2018	127	Sri Sri ayurvedic college, Bangalore
soft skill	04/03/2019	252	7th sense, JP Nagar 2nd phase Bengaluru-560068, 080-41744141
soft skill	08/10/2018	287	Carrier prime,#6, SVS complex, New 80Foot Road, Bogadi, Mysore
<a href="#">View File</a>			

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

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passed in the comp. exam	Number of students placed
2018	nil	Nil	Nil	Nil	Nil
<a href="#">View File</a>					

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

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

**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
M/s. NOVUEAU LABS	23	2	M/s. INS ZOOM	62	Nil
<a href="#">View File</a>					

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

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of programme admitted to
2019	6	CSE ECE	CSE ECE	BMS, RNSIT, DSIT.	MBA
<a href="#">View File</a>					

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

Items	Number of students selected/ qualifying
NET	Nil
SET	Nil
SLET	Nil
GATE	Nil
GMAT	Nil
CAT	Nil
GRE	Nil
TOFEL	Nil
Civil Services	Nil
Any Other	Nil
<a href="#">View File</a>	

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

Activity	Level	Number of Participants
sports	Intercollege	500
cultural	intracollege	800
<a href="#">View File</a>		

### 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	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2018	NIL	National	Nil	Nil	0	0
2019	NIL	National	Nil	Nil	0	0

2018	NIL	International	Nil	Nil	0	0
2019	NIL	International	Nil	Nil	0	0
<a href="#">View File</a>						

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

Active students council exists at CEC. Every class consists of two nominated representatives who are a part of maintaining class discipline and normally reports to class teachers. Class Teachers in turn reports academic matters to respective counselors and HODs. Every department includes student representatives in the forums for active participation. City Engineering College gives priority towards intellectual learning and to attain that class representatives are been formed from each section. The class representatives interact with the concern teacher about academic activities and are allowed to take part in addressing student's needs. The student representatives ensures in smooth functioning of the class and coordination with all Head of the Department's, faculty and students. The students develop a responsible attitude to maintain a pleasant educational atmosphere in the institute. The student representatives are educated by the faculty regarding antiragging and monitor in retaining a ragging free environment in the institution. The faculty are assisted by the student representatives in maintaining discipline in the institution, which includes classrooms, corridors, laboratories, sports ground, canteen and other common areas used by the students. The student representatives along with the faculty motivate the students to participate in different service programs in the institution like Blood Donation Camp and Swachh Barath. The student representatives motivate the students to participate in indoor and outdoor games like cricket, volley ball, basket ball, chess, table tennis and caroms. The students with the help of the faculty organize activities like Teachers' day, Annual day, and Engineers' day. Page 53/85 24-01-2019 10:49:13 Self Study Report of CITY ENGINEERING COLLEGE The student representative plays a vital role in Departmental activities such as conduction of seminars, conferences and workshops. The student representatives involve themselves in events such as college day, Independence day, Republic day and various national festivals. They also actively participate in formation of Sports committee, cultural committee and magazine committee. The college provides ample avenues for developing technical skills, updating knowledge, personality development and service to the society through such student representatives. Administrative Bodies such as SC/ST and OBC cell, Alumni Association, NSS, RED-CROSS, Department level forums and Conference organising committee does include student representative for effective functioning

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

CEC has a Registered and Functional Alumni Association: The name of the Association shall be "CITY ENGINEERING COLLEGE ALUMNI ASSOCIATION" Herein after referred to as CECAA. The registered Office of the CECAA shall be located at City Engineering College campus, Doddakalasangraha, Off Kanakapura Main Road, Bangalore - 560 061, Karnataka, India, herein after called the institute. The working hours Association shall be 9.00am to 5.00pm. The jurisdiction of the Association shall be Bengaluru only. In these Rules Regulations the context otherwise means: a) Act: Means, The Karnataka Societies Registration Act, 1960 (Karnataka Act No. 17 of 1960) b) Association: Means "CITY ENGINEERING COLLEGE ALUMNI ASSOCIATION". c) Course of Study: Means Under Graduate or Post Graduate

courses conducted in the Institution / College. d) Executive Committee: Means the Executive Committee constituted under the rule 8.0 Funds: Means "Funds of the Association deposited in a separate account in the name of the Association". e) Financial Year: Means "the period commencing from 1st April and ending with 31st March of next year". f) General Body: Means "the General Body consisting of all the members". g) Institute: Means includes City Engineering College, Doddakalasangra, Off Kanakapura Main Road, Bengaluru, affiliated to VTU approved by AICTE. h) Meeting: Means "meeting of the Executive Committee or General Body or Special General Body held periodically from time to time". i) Member: Means "Members of the Association comprising all life members". j) Office Bearers: Means "the President, Vice President, Secretary, Treasurer members". k) President: Means "President of the Association". l) Secretary: Means "Secretary of the Association". m) Treasurer: Means "Treasurer of the Association". n) Association: Means "CEC ALUMNI ASSOCIATION". o) Vice President: Means "Vice President of the Association who shall preside over the meetings in absence of President". MEMBERSHIP: CECAA shall have the following categories of members. i. Life members. ii. Honorary members. LIFE MEMBERS: The following individuals shall be a Life Member: Those who receive a Degree on successful completion of various full time courses offered by CEC on payment of prescribed membership fee from time to time. HONORARY MEMBERSHIP: Apart from the individuals mentioned in 5.1 the following individuals may be granted honorary membership of Association for a period decided by the Executive Committee: i. All the past Principals of the Institution. ii. All retired faculty who have served the Institute for more than ten years. iii. Persons who have rendered distinguished service to the cause of Technical Education. iv. Persons who have exhibited Excellence in Industries/RD organizations. v. Persons who have contributed to social Causes. vi. All the faculty members who are not the alumni of the institute shall be honorary members of CECAA till such time they hold their offices. The Development of CEC due to Alumni contribution has been non-financial. Last two years, the Alumni Association has been insignificantly contributed to placement opportunities. The institution has a very active alumni cell with a full-fledged Alumni Officer. The alumnus forms the major strength of the institution. The Alumni Association was formed in the year 2016.

5.4.2 – No. of enrolled Alumni:

320

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

0

5.4.4 – Meetings/activities organized by Alumni Association :

the institution has an active registered Alumni association, the registration is renewed every year. The members meet at least once in a year and discuss all the issues pertaining to the development of the institution both academically and otherwise. The alumni participation basically is in areas of identifying the gaps between the levels of learning within the campus and the levels of learning expected by the industry. The institution arranges lectures by alumni in different departments so that the students can be motivated to prepare themselves for careers in an environment of global competition. Alumni team does CSR activities every year.

## **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)



At City Engineering College, Academic activities are decentralised programmewise but are in tune with the Academic administration by the Principal and VTU stipulations. Members of the faculty participate in meetings by the Principal and Governing council. The institution is headed by the Principal who is responsible for the overall development of the Institution and execution of Academic activities in tune with the expectations of the Statutory and Governing bodies. Vice-Principal supports principal for handling First year responsibility and arranging CIE and SEE exams. Independently, Heads of the Departments (HODs) are handling defferent programmes to achieve academic goals and to administer regulations set by the affiliating body from time to time. Head of the departments are responsible for over-all functioning of the respective department. HODs shall audit and report academic performance of faculty from time to time. As a measure of Decentralisation, each HOD is provided with rupees one lakh for spending on department contingencies such as repair, maitainance and purchases of equipments. Under the head-ship of Principal, we have decentralized the powers among Administrative Officer, Executive Officer and Special Officer who share administrative works concerning the college. AO executes the work related to administration, budgeting, accounts and responsible for development of the infrastructure. Executive Officer is responsible for image building of the college by planning and executing strategy of overall development of the college, to use the available resources in a constructive manner, to look after staff welfare, to assist in financial decision making and to co-ordinate and to report to principal regarding any developments. Special Officer is held responsible for placement activities of the college, to organize activities which will be beneficial for the growth of the college, to look into student welfare, to coordinate with HOD's to conduct guest lecturers and to organize field visits, is mainly Page 58/85 24-01-2019 10:49:15 Self Study Report of CITY ENGINEERING COLLEGE responsible in maintaining hospitality and for human relation development. Over all, all with the different assigned duties to work in coordination for the development of the institution. All these make sense for Decentralisation and Participative Management.

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

Yes

## 6.2 – Strategy Development and Deployment

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

Strategy Type	Details
Curriculum Development	The curriculum is prescribed by the University Visvesvaraya Technical University (VTU). The curriculum undergoes a revision once in four years. During the course of its revision the institution encourages our faculty members to contribute to enrich the curriculum. This is carried out by communicating to the university during the process of preparing and finalising the revised / new curriculum. Feedback by the alumni once a year as well as the students during the final year of their course is taken into consideration by the institutions. The consolidated recommendations are forwarded to the university to be used

in enlarging, enriching and updating the content to meet the current trends in the industry.

Teaching and Learning

CITY ENGINEERING COLLEGE AQAR 2018-19 is as per Guidelines of IQAC .The institution follows the outcome based education(OBE). The institution has been following student centric teaching and Learning methods for the past four years. The faculty continuously improve the delivery system by adapting the PDCA (Plan, Deliver, Check, Act) cycle. The faculty identifies outcomes to be realized by the students after completing the course. They thoroughly design the delivery content, student participation activities and the assignments to be completed by the students during the semester for every subject. Then they go about implementing their plan to the last detail. A continuous evaluation of the progress made by the students has been adopted. As a part of continuous evaluation process three internal assessment tests are conducted apart from other methods of evaluation by the faculty.. The innovative practice aims at active learning process of the students by involving them to come pre-prepared with concepts to each and every class, participate in group learning inside the classroom facilitated actively by the faculty in a series of pre-planned steps. The innovative exercise has been implemented. The implementation has been limited to only few specific subjects on an experimental basis. every faculty across the institution follows OBE the institution has set its goal to get accreditation by NBA.

Examination and Evaluation

The institution has adopted an Outcome Based Education (OBE) system. The faculty set the question papers as per Booms taxonomy evaluate the levels of examination questions set by the university for Semester End Examination (SEE) and identify the gaps to be made up to meet the requirements of Course Outcomes (COs). The gap is made up through the internal assessment tests where the questions are set at different levels of Bloom's Taxonomy. Also the faculty in each subject supplement the content together with assignments to be completed by students

to augment the prescribed syllabus so as to meet the requirements of Program Outcomes (POs). Hence a continuous effort is being exercised to add value to our students and prepare them to meet the current needs of the industry. To administer uniformity for conduct of internal assessment tests which incidentally would be accountable for measurement of Course Outcomes attainments and hence Program Outcome attainments, a system is to conduct of university semester end examinations has been implemented in this academic year.

Research and Development

: The institution is engaged in research and development with one VTU approved research centres to facilitate faculty to pursue research activities and executing sponsored projects. Apart from the approved research centres, the institution has established centres of excellence to facilitate both the faculty and the students to pursue research activities. Students in particular can work on current technology through mini-projects and experiments in identified areas beyond the coverage of the syllabus thereby they acquire the knowledge/skill by doing. Students are motivated to enrol and engage in learning. The mini-projects and the final year major projects are exhibited on a Project Exhibition Day named as Battle of Science(for first year) and Open day(higher semester) every year. The alumni and industrialists are invited to evaluate the projects to reward the select projects. Further mini projects can be taken up by the faculty and students in emerging areas of technology. Specific research labs in the department of mechanical engineering have been established to conduct research work in specific areas

Library, ICT and Physical Infrastructure / Instrumentation

The digital library has been reinforced with the latest version of soft ware LIB SOFT by replacing the computers with the older ones. Digital content under licence is continued by renewing the licence annually. Computer laboratory for first year students is being revamped with new computing systems and furniture. The laboratories in computer Science and Information Science engineering departments have

	<p>been furnished with more computers. A Language laboratory for practicing communicative English has been established during the academic year 2018-19.</p>
Human Resource Management	<p>As a part of Quality Improvement programme, review and enhancement of HR policies and procedures of the institution has been completed and an updated and comprehensive HR framework would be in place before the beginning of the academic year 2019-20.</p>
Industry Interaction / Collaboration	<p>The institution continues to propagate industry connect through Technical talks / Invited seminars . We do organize Industry visits / tours in every department. Evaluation of Students' project work /internships is regularly done and faculty helps and give guidance to do the best.</p>
Admission of Students	<p>Prospective bright PU / 12th students are provisionally admitted by merit scholarship. Students are selected through competition and counselled by eminent academicians and industry on learning process and advantage skills. Valuable fee concession is offered which improves admission quality. Students admit through CET, COMEDK and also managment QUOTA. All-round significant improvement in Teaching-learning process, research, and infrastructure launched to showcase the improved brand image of the engineering programme. For improving the quality of incoming fresher, bridge courses in mathematics, physics and communicative English are being conducted as a process to augment the perceived gap between PU / 12th and engineering pre-requisites. Target students are identified through a competency level test.</p>

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

E-governance area	Details
Administration	<p>Organisation Structure of the Institution, Functional statutory committees and Service rules. The City Engineering College Organisation Structure is well defined with the Governing Body at its apex. The Governing Body is headed by Hon.Chairman Dr.K.R.Paramahamsa, supported by Vice Chairman Smt.Geeta paramahamsa, Vice-president Ms.Monika</p>

Kalluri and Executive Vice-president Rahul Kalluri. This is followed by Governing Council which includes, the Principal City Engineering college as Ex- officio Member Secretary, the Director, DTE Karnataka, VTU Nominee and the AICTE Nominee. Regular GC meetings are held as per norms. to review progress of the developmental issues undertaken, to discuss new proposals and to ratify decisions taken earlier in the interest of the organisation. The Administrative set-up is headed by Principal and is supported by Vice-principal, HODs, Administrative officer, Executive officer and Special officer. The Vice Principal HODs support PRINCIPAL for Academic functions and Officers support for Administrative functions. Various Statutory Committees such as Anti-Ragging Committee, Grievance Redressal Committee, Anti- Sexual Harrassment committee and SC/ST OBC Committee are actively functioning in the Institution to take care of Student and Staff grievances and to establish Social justice from time to time. Service rules are established in the Institution which clearly defines every parameter of Service related issue. The service rules are updated from time to time depending on the changing norms by statutory bodies or special inclusions as suggested by GB/GC of the organisation. The Service rules are laid down detailing procedures governing recruitment, leaves, confirmation, disciplinary actions, resignation and retirement for Faculty and Staff of City Engineering College.. The service rules for Promotional Policy are as per AICTE stipulations from time to time. The City Engineering College has lodged a dynamic Grievance redressal Mechanism where Students and Staff can interact with grievance redressal committee or Principal online through college portal. The ERP online system is active and functioning well as a valuable tool for academic Administration.

Examination

The institution has adopted an Outcome Based Education (OBE) system. The faculty set the question papers as per Booms taxonomy evaluate the levels of examination questions set by the university for Semester End Examination

(SEE) and identify the gaps to be made up to meet the requirements of Course Outcomes (COs). The gap is made up through the internal assessment tests where the questions are set at different levels of Bloom's Taxonomy. Also the faculty in each subject supplement the content together with assignments to be completed by students to augment the prescribed syllabus so as to meet the requirements of Program Outcomes (POs). Hence a continuous effort is being exercised to add value to our students and prepare them to meet the current needs of the industry. To administer uniformity for conduct of internal assessment tests which incidentally would be accountable for measurement of Course Outcomes attainments and hence Program Outcome attainments, a system is to conduct of university semester end examinations has been implemented in this academic year. Principal and VicePrincipal look after the process with the help of HODs

Student Admission and Support

Prospective bright PU / 12th students are provisionally admitted by merit scholarship. Students are selected through competition and counselled by eminent academicians and industry on learning process and advantage skills. Valuable fee concession is offered which improves admission quality. Students admit through CET, COMEDK and also managment QUOTA. All-round significant improvement in Teaching-learning process, research, and infrastructure launched to showcase the improved brand image of the engineering programme. For improving the quality of incoming fresher, bridge courses in mathematics, physics and communicative English are being conducted as a process to augment the perceived gap between PU / 12th and engineering pre-requisites. Target students are identified through a competency level test. Management supports for build the image branding. Admission team works on the admission work under the guidanace of Principal

### 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	Name of the professional body for	Amount of support
------	-----------------	--	--------------------------------------	-------------------

		for which financial support provided	which membership fee is provided	
2019	nil	nil	nil	Nil
2018	nil	nil	nil	Nil
<a href="#">View File</a>				

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

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2018	nil	nil	01/08/2018	31/12/2018	Nil	Nil
2019	nil	nil	01/01/2019	31/07/2019	Nil	Nil
<a href="#">View File</a>						

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

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
Language Literature culture	2	28/12/2018	30/12/2018	3
workshop on Materials characterization by SEM and XRD	2	22/02/2019	22/02/2019	1
Advance surveying techniques using Total Station	2	16/02/2019	16/02/2019	1
FDP on data science analytics	3	22/01/2019	24/01/2019	3
FDP on Internet of Things	3	18/07/2018	19/07/2018	2
Workshops on Machine Learning	4	09/07/2018	14/07/2018	6
workshop on Python Application Programming	3	22/01/2018	24/01/2018	3

National Symposium on Data Science Statistics Trends and Challenge	4	04/07/2018	05/07/2018	2
<a href="#">View File</a>				

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

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
9	9	3	3

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
Health Insurance	Health insurance and PF	Accident insurance

**6.4 – Financial Management and Resource Mobilization**

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

The institution conducts financial audits every year since from its inception. The audit is carried out by experienced and renowned Chartered accountants and their firm. This year the audit was conducted by RKSM AND ASSOCIATES, the registered firm with Firm registration Number 022096N. Mr. Rajkishor Prasad, partner and chartered accountant of the firm has signed audit report for the year 2017-18. The chartered accountant of the firm has mentioned in his report of the audit that: We have examined the balance sheet of the college and income expenditure account for the year ended on that date (31/03/2018) which are in agreement with the books of accounts maintained by the said institution. We have obtained all the information and explanation which to the best of our knowledge and belief were necessary for the purpose of the audit. In our opinion proper books of accounts have been kept by the above named institution so far as appears from our examination of the books. In our opinion and to the best of our information and according to the information given to us the said accounts give a true and fair view. Every year the college has received Acknowledgement from the Indian Income Tax Department. There are no pending audit objections from the Income Tax Department as of now. There are no pending objections related to Tax, Interest, TDS, etc., from the Indian Income Tax Department till today. The periodical internal audits are conducted by the auditors i.e., by RKSM AND ASSOCIATES, the registered firm with Firm registration Number 022096N. Mr. Rajkishor Prasad, partner and chartered accountant of the firm guides the college staff in conducting the internal audit which is a continuous process.

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

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
nil	0	nil
<a href="#">View File</a>		

6.4.3 – Total corpus fund generated

0
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**6.5 – Internal Quality Assurance System**



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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	VTU-Affiliating university	Yes	Principal and HODs
Administrative	Yes	Auditor Rajkishore Prasad	Yes	Principal, VicePrincipal and HODs

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

Parents teacher meeting, feedback, Counselling

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

Teaching Aid kit for children of support staff, Uniform for support staff, Provident fund

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

Infrastructure development- Microcontrolled lab development, Software renewal for EC dept. E-Shikshana, E-Learning centre Online classes, Webinars

6.5.5 – Internal Quality Assurance System Details

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

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2019	Conduction of project exhibitions	17/05/2019	17/05/2019	17/05/2019	900
2019	regular industrial visits	25/10/2018	25/10/2018	26/10/2018	900
2019	Organized FDPs workshop	14/03/2019	14/03/2019	15/03/2019	120
2019	Technical talks by experts	25/03/2019	25/03/2019	26/03/2019	100
2019	Quiz competitions	20/03/2019	20/03/2019	22/03/2019	110

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**CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES**

**7.1 – Institutional Values and Social Responsibilities**

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

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
<b>INTERNATIONAL WOMENS DAY</b>	<b>08/03/2019</b>	<b>08/03/2019</b>	<b>30</b>	<b>20</b>
<b>Women's Empowerment Day</b>	<b>08/03/2019</b>	<b>08/03/2019</b>	<b>300</b>	<b>Nil</b>

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

Percentage of power requirement of the University met by the renewable energy sources
<b>TOTAL ANNUAL REQUIREMENTS 112020KWH Annual power requirement met by the renewable energy sources (in KWH)24456 Percentage of power requirement of the University met by the renewable energy sources 5160/2445621.1</b>

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
<b>Provision for lift</b>	<b>Yes</b>	<b>200</b>
<b>Rest Rooms</b>	<b>Yes</b>	<b>250</b>
<b>Ramp/Rails</b>	<b>Yes</b>	<b>100</b>

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
<b>2018</b>	<b>2</b>	<b>2</b>	<b>13/08/2018</b>	<b>01</b>	<b>Engaging PGs with students Free college bus, College display board, BBMP tar road along gokulam apartment</b>	<b>Engaging PGs with students Free college bus, College display board, BBMP tar road along gokulam apartment</b>	<b>150</b>

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

Title	Date of publication	Follow up(max 100 words)
<b>Constitution of India, Professional Ethics and Human Rights (CPH)</b>	<b>01/08/2018</b>	<b>MODULE- I Introduction and Basic Information about Indian Constitution MODULE- II Union Executive and State Executive MODULE-</b>

III Elections, Amendments and Emergency Provisions  
Module- IV Constitutional Provisions/ Local Administration/ Human Rights  
MODULE- V Professional / Engineering Ethics

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

Activity	Duration From	Duration To	Number of participants
Yoga day	21/06/2018	21/06/2018	200
Independence day	15/08/2018	15/08/2018	200
Engineers' Day	15/09/2018	15/09/2018	150
Blood Donation Day	05/10/2018	05/10/2018	350
Gandhi Jayanthi	02/10/2018	02/10/2018	325
Republic day	26/01/2019	26/01/2019	100
Women's day	08/03/2019	08/03/2019	180
Ambedkar Jayanthi	14/04/2019	14/04/2019	250
Teachers day	05/09/2019	05/09/2019	140

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

Green Practices 1.Students, staff using a) Bicycles b) Public Transport c) Pedestrian friendly roads 2. Plastic-free campus 3Paperless office • 4Green landscaping with trees and plants 5 Pedestrian Friendly roads: The Institute has pedestrian paths on both the sides of the road within the campus. Plastic-free campus: The institute has taken steps for not using plastic in the campus. Instructions have been given to canteen to not use plastic. Students are also informed not to use and throw plastic material during lunch hours. Our students have collaborated with NGO named "Way of life" for Swachh Bharath campaigns and clean the surroundings in and around Bangalore. Paperless office: Salary, circulars and fee collection is done online, so paperless office. The instructions have been given to all the departments to avoid using the paper and taking necessary steps to send all the circulars by email. The instructions have been given to all the staff members for uploading notes, assignments, model questions to the ERP-PupilPod. The students have been given ERP log-in so that they can access to all the notes, assignments and model questions on-line. This helps to students to avoid taking copies of the notes, assignments and model questions. The college gives emphasis on paperless office to save carbon footprint due to printers.Green landscaping with trees and plants: Entire campus of the college has been made green by planting trees and plants. By this, the green campus concept offers the City Engineering College to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social and economic needs of the mankind. Tree Plantation is done every year through NSS. The college has nurtured number of trees of different variety.

#### 7.2 – Best Practices

##### 7.2.1 – Describe at least two institutional best practices

ERP Software:A well-managed data centre implemented with the "Pupilpod"

software. This software has been developed to improve the overall academic performance of students by actively involving parents and teachers alike in the process. To facilitate easy access of the students' details such as, attendance, internal marks, timetable etc., to parents and students. To establish instant communication between college, student and parents through alerts and messages. To give the HOD / Principal / Parents a bird's eye view of the progress of all the students. Pupilpod - It helps to connect, the three pillars of institution, the students, the teachers and the parents at the click of a button. All the students details, attendance, University results and internal marks, assignments, timetable etc., are maintained through this software. Students and Parents can access these details using a login ID provided to them. Parents can stay updated about their ward's progress through SMS and e-mails. Parents can interact with HOD/Principal about their wards through this software solution. Well informed and well-connected parents and teachers. Improvement in attendance and IA performance by students. The major challenge involved was gathering and assimilation of large amount of relevant student data before the software could be activated. The other challenge was creating awareness among students and parents and motivating them to start using Pupilpod actively. The required resources involved significant amount of investment in terms of money, computers to support the software, a high speed internet connection and of course the team of teachers to update the relevant information on daily basis.

**PROCTOR/ MENTOR SYSTEM:** The following have been introduced in all the departments. This helps in: Enabling overall development of the student. Helping students to resolve their difficulties (both in academic and non-academic). Counselling students on areas apart from academics. Fostering good student teacher relations. It also helps the students in settling down within the new system and helps in achieving and performing better. This system leads to a healthier student teacher relationship and a better learning environment on the campus. Every Teacher / Proctor has 15 to 20 students under him/her. A proctor diary is maintained for each student which contains the data with respect to details such as internal marks, academic history. Once a month a proctor meeting is conducted at a scheduled time. During this meeting, the proctor holds one to one interaction with the student. The proctor tries to counsel not only in academic areas but also on other aspects of student problems. Any specific problems of the students are noted down and addressed. The proctor discusses with the HOD regarding problems faced by the student to find the solution. Feedback from students and parents during parent teacher meeting are testimony to the success of this program. In some cases mentorship by faculty has certainly helped students to overcome their shortcomings and perform reasonably well in their academics. It requires continuous updates of the activities of the students, their marks, attendance etc., though these can be easily obtained, the students themselves sometimes refuse to communicate with the proctor. Sometimes it takes effort for the proctor to encourage students to communicate, to be able to guide them effectively

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

<https://cityengineeringcollege.ac.in/7-2/7-2/best-practices/>

### 7.3 – Institutional Distinctiveness

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

VISION Making Remarkable Contribution by Disseminating Knowledge on Emerging Trends in Engineering and Technology through various Programmes, Innovation and Research so as to excel in Quality both at National and International level and to provide Career Guidance Training for Employment. MISSION M1: To Encourage

Knowledge Acquisition and Foster Innovation and Research. M2: To Prepare Students for Immediate Employment, which leads to Technological and Social - economical growth. M3: To Provide Guidance for a Productive career.under various Programmes Performance of the Institution Distinctive to its Vision,Priority and Thrust. The Institution is performing to fulfil Disseminating Knowledge on Emerging Trends in Engineering Technology. The Institution has been in existence for the last 17 years graduating 13 batches of students under four different programmes. The curriculum revision has taken place five times since the inception of the first batch in 2001-2002. Every revision has seen addition of a number new courses based on the emerging trends in Technology and addition of new Labs. All the Manual Drawing Subjects that were in curriculum earlier got converted in to Computer Aided Engineering Drawing. New Application programmes such as SOLID EDGE was introduced. More of Modeling and Simulation based courses and Labs are introduced. More electives based on the advances in respective programmes were introduced. More value added courses such as Constitution of India, Professional Ethics, Human values and Page 82/85 24-01-2019 10:49:26 Self Study Report of CITY ENGINEERING COLLEGE Environment Science were introduced. More of thrust was given to Student Projects and Internships. Innovative projects are encouraged by the Institution which are evident from the number of KSCST funded and VTU funded Students Projects. More distinctive of City Engineering College is the Student Project Exhibitions catering to Innovative needs of Student Community. Our Institution's Quality Objectives are: 1.To provide an opportunity to the student community for learning through recent resources. 2.To inculcate carrier link domain skills for higher studies, entrepreneur and employment. 3.To have zeal for continuous improvement. 4.To develop good leadership activities and good human being for nation building. 5.Institute seeks to inculcate moral and ethical values among students and staff. All the departments of college have conducted certificate courses and training programmes in the subjects which are not in our curriculum. These training and certificate courses are conducted by the established and qualified trainers. These students have been given certificates for having taken the training programmes. These training courses mainly useful for the students in their future career. This will achieve our vision and mission - M1, M2 M3.

Provide the weblink of the institution

<https://cityengineeringcollege.ac.in/7-2/7-3/7-3-1/>

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

In future, we want to create a top class learning environment comparable with best in th world universities by gradually acquiring the status of university.Planning to provide more ICT facilities to students and faculty members which helps the students to get lesson plan, notes and videos. To encourage faculties to publish their research only in the reputed journals with good impact factor and Scopus index. To enhance the research activities in the campus. Use of technology (MOOCs, NPTEL) for enhancing the learnability coefficient (self-pace)of the graduates.Collaborative efforts with the industry personnel for enhancement of learning levels of the graduates.. Establishment of Interdisciplinary research teams to work in niche areas in collaboration with industry and research organisation.