

FOR 1st CYCLE OF ACCREDITATION

CITY ENGINEERING COLLEGE

DODDAKALLASANDRA, NEAR GOKULAM APARTMENT, OFF, KANAKAPURA MAIN ROAD, 560061

www.cityengineeringcollege.ac.in

SSR SUBMITTED DATE: 24-01-2019

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

January 2019

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

The City Engineering College (CEC) was started in the year 2001 by Jayanagar Education Society, Bengaluru, Karnataka, India. Dr. K. R. Paramahamsa—A Distinguished Academician, Educationist & Philanthropist is the Chairman of Jayanagar Education Society. Dr.K.R. Paramahamsa is an Outstanding Personality with a vision to develop standard educational institutions and to deliver Quality Education in an excellent academic environment from primary to research level. The special focus areas of his efforts are extended to disciplines of Engineering & Technology, Business Management and Administration, Science, Computer Applications and Hospitality Management. The City Engineering College is administered by the Governing Body and Governing Council duly constituted as per norms.

The City Engineering College is Affiliated to Visvesvaraya Technological University (VTU), Belagavi, Karnataka, Recognised by Government of Karnataka and Approved by AICTE, New Delhi. The college is situated in a sprawling campus spread around 11 acres area located next to Gokulam Apartments, Doddakallasandra off Kanakapura Road, Bengaluru, Karnataka,India.Currently we have 4 UG programmes with a total approved intake of 600 and 1 PG programme with an approved intake of 24.

The Institution provides an Excellent Learning echo-system to students through sustained efforts by providing Teaching, Lab, Library and Building Infrastructure facilities and fulfilling Quality expectations. IQAC has been formed to monitor quality aspects. ERP software is employed to monitor Teaching-Learning. The Model Curriculum as per the AICTE guidelines has been implemented for the fresh batch of 2018-19. Study material and Assignment questions for students are hosted on Pupilpod-ERP platform on a regular basis. Online Grievance-redressal mechanism has been implemented. E-SHIKSHANA, a e-learning platform for Interactive Seminars, Webinars and Conferences has been instituted. The Institution is inching towards out-come based education from being a mere an in-put based.

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

Socio-economical growth.

M3: To Provide Guidance for a Productive career under various programmes.

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1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- 1. The Institution is located in heart of the City, favoring easy transportation for both faculty and students. The institution is in close proximity with many Civil, Mechanical and Software Industries facilitating the students to take up internships and project works.
- 2. The Institution has an efficient team of well qualified and dedicated teaching and non-teaching staff.
- 3. The Institution has well equipped and well-maintained infrastructure for efficient and effective teaching-learning process.
- 4. The Institution is green and eco-friendly campus.

Institutional Weakness

- 1. Drop in the admissions due to inappropriate seat sanctioning by the Govt. to Private Universities.
- 2. Finding difficult to meet the high expectations of statutory bodies due to declining admissions.
- 3. Institution requires funding support from government agencies and industries for incorporating research culture.
- 4. Institution has less collaboration with reputed international institutions and industries.

Institutional Opportunity

- 1. Establishing research centre for Mechanical, Civil, Electronics and Computer science departments
- 2. Possibility of getting assistance towards research grants from funding agencies
- 3. Having an opportunity to become Autonomous Institution to incorporate academic deviations for better future

Institutional Challenge

- 1. Retention of faculty by satisfying their demands to maintain a low attrition rate
- 2. Upgrading the organization to meet the requirements of frequently changing academic structure
- 3. Change in government policies regarding admissions and fees structure.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Institution is focusing on OBE in all programs and courses having well-defined objectives and learning outcomes aligned with institutional Vision and Mission. The institution follows the curriculum designed by VTU Belagavi. Principal and all the Heads of the Departments together prepare the academic calendar following the University dates regarding the CIE schedule is updated to ERPas well as college Notice Board.

Curriculum review and development is done regularly to keep pace with developments in respective fields and meets the requirement of academia, industry/profession and society. New courses are introduced as per stakeholders' feedback by the VTU. Students are provided with flexible Choice Based Credit system (CBCS)

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having access to excellent curricular and co-curricular opportunities for enhancing academic, employability and entrepreneurial skills. Ample choices are offered to students by integrating CBCS and discipline specific, interdisciplinary/multidisciplinary electives in curricula to meet student's interests and aspirations.

Courses relevant to Professional ethics, Human Values and Community Outreach are integrated in all programs. Value-addition courses like Communication Skills, Local Language, are imparted for holistic development of students. Research based courses inculcate research bent of mind in students resulting into research publications and innovative projects. Institution has MOUs with various companies to offer skill-based courses to enhance students' employability through internship, projects, field work etc. Results of outcome assessment and stakeholder's feedback serve as input for continuous improvement in curriculum.

Teaching-learning and Evaluation

Institution has student community from diverse geographical regions/ethnicity and provides adequate support to cater to their varied learning needs. Diversity indicates popularity of the institution in terms of teaching-learning and resources. Institution conducts proficiency assessments and offers bridge classes, remedial classes, and tutorials to support slow learners. Student-faculty ratio is optimally maintained to facilitate student centric learning environment. Physical infrastructure of institutionis disable-friendly by providing ramps, lifts, wheel chairs, special toilets etc. Student-centric learning environment provides appropriate pedagogy for participative and experiential learning.

Faculty use ICT to make teaching effective and also adopt innovative teaching methods such as unit test, open book test, surprise test, group discussions, assignments etc.

Each group of around 20 students is assigned a Mentor from faculty to assess their academic background, personal background, career interests and industry/sector preference. Institution ensures adequately qualified and experienced faculty.

The Institution has separate Examination cell comprising of senior faculty members and a team of teaching and non-teaching staff members. Pattern of question papers for Internal Assessment are same as that of the university exam. Declaration of examination results is as per VTU examination calendar and student grievances are addressed timely by VTU Coordinator of the Institution. The examinations at university level are conducted with strict compliance to VTU regulations. All exam halls are provided with CCTV cameras with online monitoring facility by Principal and VTU.

Research, Innovations and Extension

The Institution is currently creating an enabling environment to foster research culture by providing required research infrastructure. The Principal and many Professors of the Institution are with excellent research credentials. Currently we have been sanctioned with **VGST Research Promotion Grant** for Advanced Materials for Green Energy. Many of our Students' Projects have received KSCST Grants and VTU Grants for final year Projects. The Principal evaluates progress of funded projects for better research outcome. City Engineering College has set up Industry Institute Interaction cell, for entrepreneurs to start their own venture. Establishing a dedicated IPR cell to help faculty for patent filing and commercialization is in progress. To help

newly admitted Students to have first-hand experience of fundamentals in various programmes, a **Basic Technology Lab** is setup. Institution promotes faculty engagement in authoring books, publications, newsletters, organizing seminars, conferences, workshops, consultancy and training. We have applied for the VTU Research Centre in Mechanical Engineering. The City EngineeringCollege follows Guidelines for Plagiarism prevention using "Turn-it-in plagiarism software". The institution has MoUs with institutions/industries, corporate houses for academic and research collaborations.

Infrastructure and Learning Resources

Institution has an excellent infrastructure, learning resources including ERP system, ICT enabled classrooms, seminar halls, fully equipped laboratories and computer labs, library and other support facilities etc. Institution has substantial infrastructure for sports and other extracurricular activities including athletics, basketball, cricket, volleyball, football, badminton, yoga and meditation, etc. The institution has a fully equipped library which houses sufficient number of books of all disciplines, collection of rare books, manuscripts, special reports and large number of e-journals and e-books. Learning Resources like delnet, opaq, vtu e-consortium, e-Journals, e-books, etc. are available to faculty and students and can be accessed remotely also. Budget for infrastructure, library and other learning resources is earmarked annually based on the recommendations of respective committees constituted for the purpose. Faculty and students are encouraged to register for e-contents such as NPTEL, AICTE contents etc. Review and upgrade of IT infrastructure is carried out annually and accordingly annual budgetary plan is prepared for approval of Governing council. Institution maintains adequate student computer ratio with over 100 MBPS bandwidth for internet connection. The maintenance personnel will regularly sought about the requirements for ensuring continuous review of infrastructure and academic resources by respective committees and the recommendations are integrated in the Annual Planning for upgrading, maintaining and utilizing physical, academic and support facilities.

Student Support and Progression

Institution has well established student support system for counseling, progression, alumni engagement, etc. Institution occasionally awards student scholarships annually for deserving candidates. Students are also informed about various government scholarships. Institution has a robust system to provide support to students for soft skill development, placements and entrepreneurship through Placement cell. Weak students are supported through bridge courses, remedial coaching and mentoring. Student grievances are addressed at various levels both in person and through online grievance reddressal system helping in resolving the students' issues at faster speed as per AICTE regulations. Placement cell maintains strong relationship with industry and support students in placement Progression of students for higher education, placement and going for family business or starting their own venture is analyzed annually. Students are active members of cultural and sports and are encouraged to participate in intra/inter-institutional sports competitions and cultural activities. Institution regularly engages with its Alumni through alumni meets, admission boards, alumni mentors of students etc.

Governance, Leadership and Management

Institution has qualified and competent administrators to provide effective governance and leadership at all levels. The Organization structure with well-defined organizational hierarchy supports participative management of City Engineering College in effective decision making. Well documented 5 years strategic plan

aligned with Institution's Vision, Mission is in place and is deployed across the Institution. Institution organizational structure helps in sustaining institutional capacity and education effectiveness through involvement of stakeholders in Committee/ Boards at various levels. The minutes of the meeting of all the committees are communicated and maintained. Service rules, employee welfare schemes, promotion systems are well defined. The Institution provides adequate support to the faculty for professional development for attending conferences / workshops. The Institution has Performance Based Appraisal System (PBAS) for teaching and nonteaching staff. All processes and functions are ensuring transparent governance.

The compliance of academic and administrative procedures and their continual improvement is ensured through systematic audit by IQAC and Governing council.

Institutional Values and Best Practices

The Institution is sensitive to gender equity and parity. Sensitization programs are organized regularly. Safety and security, common room, counseling facilities are provided to females. Antiragging and sexual Harassment Committee ensures fast decisions if any case of sexual harassment issue should arise. Institution uses 50% LED bulbs. Energy consumption is continuously monitored for improvement through energy audits. Standard operating procedures have been evolved for waste handling. Government approved agency collects hazardous waste and other wastes. Institution has eco-friendly Green and Clean campus. Budget for green initiatives/activities is allocated annually. Institution has strong commitment to differently-abled people and provides facilities like ramps, lifts, special washrooms, reserved space in Library etc. Institution contributes to community development through activities in collaboration with local administration, NGOs, etc. Institution's core values are available on website and lay significant emphasis on ethics, values and community engagement. City Engineering College celebrates all important days of national/international importance and conducts large number of activities to promote universal values. Institution maintains complete transparency by involvement of all stakeholders in financial, academic and, administrative functions.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College		
Name	CITY ENGINEERING COLLEGE	
Address	Doddakallasandra, Near Gokulam Apartment, Off, Kanakapura Main Road,	
City	Bengaluru	
State	Karnataka	
Pin	560061	
Website	www.cityengineeringcollege.ac.in	

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Professor	SANDHYA N	080-26638992	8660938197	080-2663899	hodcse@cityengine eringcollege.ac.in
Principal	V. S. RAMA MURHTY	080-22560313	9880411365	080-2256031 4	principal@cityengi neeringcollege.ac.i n

Status of the Institution	
Institution Status	Self Financing and Private

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details	
Date of establishment of the college	27-06-2001

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University to which the college is affiliated/ or which governs the college (if it is a constituent college)

State	University name	Document
Karnataka	Visvesvaraya Technological University	View Document

Details of UGC recognition			
Under Section	Date	View Document	
2f of UGC	24-05-2017	<u>View Document</u>	
12B of UGC			

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority Recognition/App roval details Inst itution/Departme nt programme Recognition/App pay,Month and year(dd-mm- yyyy) Remarks months				
AICTE	View Document	10-04-2018	12	

Details of autonomy	
Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	No

Recognitions		
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No	
Is the College recognized for its performance by any other governmental agency?	No	

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Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Doddakallasandra, Near Gokulam Apartment, Off, Kanakapura Main Road,	Urban	11	28208

2.2 ACADEMIC INFORMATION

Details of Pro	ogrammes Offe	red by the Col	lege (Give Data	a for Current A	Academic year)
Programme Level	Name of Pr ogramme/C ourse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Electroni cs And Com munication Engineering	48	PUC	English	180	71
UG	BE,Compute r Science And Engineering	48	PUC	English	180	150
UG	BE,Mechani cal Engineering	48	PUC	English	120	45
UG	BE,Civil Engineering	48	PUC	English	120	49
PG	Mtech,Comp uter Science And Engineering	24	BE	English	24	4

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Profe	essor			Asso	Associate Professor			Assis	Assistant Professor		
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				18				36				109
Recruited	9	4	0	13	1	3	0	4	62	29	0	91
Yet to Recruit				5				32				18
Sanctioned by the Management/Soci ety or Other Authorized Bodies				18				36	J			109
Recruited	9	4	0	13	1	3	0	4	62	29	0	91
Yet to Recruit				5				32				18

	Non-Teaching Staff									
	Male	Female	Others	Total						
Sanctioned by the UGC /University State Government		2,		0						
Recruited	0	0	0	0						
Yet to Recruit				0						
Sanctioned by the Management/Society or Other Authorized Bodies				35						
Recruited	19	16	0	35						
Yet to Recruit				0						

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	Technical Staff										
	Male	Female	Others	Total							
Sanctioned by the UGC /University State Government				0							
Recruited	0	0	0	0							
Yet to Recruit				0							
Sanctioned by the Management/Society or Other Authorized Bodies				19							
Recruited	13	6	0	19							
Yet to Recruit				0							

Qualification Details of the Teaching Staff

Permanent Teachers											
Highest Qualificatio n	Qualificatio		Associate Professor			Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0	
Ph.D.	9	4	0	1	1	0	0	0	0	15	
M.Phil.	0	0	0	0	0	0	0	0	0	0	
PG	0	0	0	0	2	0	60	31	0	93	

Temporary Teachers											
Highest Professor Qualificatio n			Associate Professor			Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0	
Ph.D.	0	0	0	0	0	0	0	0	0	0	
M.Phil.	0	0	0	0	0	0	0	0	0	0	
PG	0	0	0	0	0	0	0	0	0	0	

Part Time Teachers											
Highest Qualificatio n	Professor			Associate Professor			Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0	
Ph.D.	0	0	0	0	0	0	0	0	0	0	
M.Phil.	0	0	0	0	0	0	0	0	0	0	
PG	0	0	0	0	0	0	0	0	0	0	

Details of Visting/Guest Faculties							
Number of Visiting/Guest Faculty	Male	Female	Others	Total			
engaged with the college?	0	0	0	0			

Provide the Following Details of Students Enrolled in the College During the Current Academic Year

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	138	62	0	1	201
	Female	113	2	0	0	115
	Others	0	0	0	0	0
PG	Male	3	0	0	0	3
	Female	1	0	0	0	1
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years									
Programme		Year 1	Year 2	Year 3	Year 4				
SC	Male	9	19	8	13				
	Female	7	9	13	8				
	Others	0	0	0	0				
ST	Male	2	5	10	4				
	Female	3	2	2	3				
	Others	0	0	0	0				
OBC	Male	57	67	91	48				
	Female	68	58	68	59				
	Others	0	0	0	0				
General	Male	96	45	32	118				
	Female	23	24	44	51				
	Others	0	0	0	0				
Others	Male	37	87	87	97				
	Female	18	45	45	39				
	Others	0	0	0	0				
Total		320	361	400	440				

3. Extended Profile

3.1 Program

Number of courses offered by the institution across all programs during the last five years

Response: 589

9	File Description	Document
	Institutional Data in Prescribed Format	View Document

Number of programs offered year-wise for last five years

2017-18	2016-17	2015-16	2014-15	2013-14
05	05	05	05	04

3.2 Students

Number of students year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1203	1335	1209	1225	1093

File Description	Document
Institutional Data in Prescribed Format	<u>View Document</u>

Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14	
312	312	312	312	270	

File Description	Document
Institutional data in prescribed format	View Document

Number of outgoing / final year students year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
343	349	255	249	324

File Description	Document
Institutional Data in Prescribed Format	<u>View Document</u>

3.3 Teachers

Number of full time teachers year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
108	131	126	173	156

File Description	Document
Institutional Data in Prescribed Format	View Document

Number of sanctioned posts year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
163	159	155	149	140

File Description	Document
Institutional data in prescribed format	View Document

3.4 Institution

Total number of classrooms and seminar halls

Response: 42

Total Expenditure excluding salary year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
532.04449	522.23422	575.84274	458.81954	472.08973

Number of computers

Response: 450

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

1.1.1 The institution ensures effective curriculum delivery through a well planned and documented process

Response:

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 preliminnery 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 discussess 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 procurring 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

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action is initiated. Online grievance redressal mechanism has been active for registering and follow up of students and staff grievances.

File Description	Document
Link for Additional Information	View Document

1.1.2 Number of certificate/diploma program introduced during the last five years

Response: 0

1.1.2.1 Number of certificate/diploma programs introduced year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
0	0	0	0	0

File Description	Document
Details of the certificate/Diploma programs	View Document

1.1.3 Percentage of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years

Response: 10.09

1.1.3.1 Number of teachers participating in various bodies of the Institution, such as BoS and Academic Council year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
13	0	0	0	1

File Description	Document
Details of participation of teachers in various bodies	View Document
Any additional information	View Document

1.2 Academic Flexibility

1.2.1 Percentage of new Courses introduced out of the total number of courses across all Programs

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offered during last five years

Response: 67.57

1.2.1.1 How many new courses are introduced within the last five years

Response: 398

File Description	Document
Minutes of relevant Academic Council/BOS meetings.	View Document
Details of the new courses introduced	View Document

1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented

Response: 100

1.2.2.1 Number of programs in which CBCS/ Elective course system implemented.

Response: 05

File Description	Document
Name of the programs in which CBCS is implemented	View Document
Minutes of relevant Academic Council/BOS meetings.	View Document

1.2.3 Average percentage of students enrolled in subject related Certificate/ Diploma programs/Addon programs as against the total number of students during the last five years

Response: 7.43

1.2.3.1 Number of students enrolled in subject related Certificate or Diploma or Add-on programs yearwise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
76	196	140	56	0

File Description	Document
Details of the students enrolled in Subjects related to certificate/Diploma/Add-on programs	View Document
Any additional information	View Document

1.3 Curriculum Enrichment

1.3.1 Institution integrates cross- cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum

Response:

The curriculum includes many cross-cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics. Issues relevant to Gender equality and Gender sensitisation are covered during Orientation programme and International womens day programme.

The first year curriculum includes two subjects/courses 1.Constitution of India, Professional ethics and Human values, and 2.Environmental Science. The first course teaches a set of self imposed professional ideals and principles necessary for the attainment of professional excellence and self-satisfaction. The curriculum discussess principles of professional integrity and ideals of service to the society.

The second course 'Environmental sciences' helps to create awareness about the ecosystem, biodiversity, natural resource conservation, waste management and pollution.

The institution conducts several programs on Human Values to create awareness among the students. The programs such as Swtcha Bharat Abhiyan,Blood Donation Camp,Health awareness programme,Tree-plantation,Health awareness,Traffic rules and safety,Yoga and personality development are conducted to inculcate student responsibility towards Society. Value education enables students to understand needs and visualize the goals correctly. It helps to remove confusions and contradictions thus bringing harmony at all levels. Need for value education is to correct identification of aspirations, understanding universal human values to fulfill aspirations in continuity. The NSS plays a major role in this direction.

On 5th september every year, Teachers Day is celebrated as a mark of tribute to Dr. Sarvapalli Radhakrishnan, who was a strong believer and reformer of Education.

Ethnic day is celebrated where students come in attire belonging to their home state, or specific culture of their choice representing Indian culture and heritage.

Institute promotes for eco-friendly Ganesha Idols at 'Ganesha festival' to minimize water pollution. Institute adopts the concept of traditional music by replacing harsh sound system to avoid noise pollution.

Institute celebrates Women's Day on March 8th to empower women. A guest especially women will be invited to give an insight to our ladies staff and girl students on women empowerment.

Anti-Ragging and Anti Sexual Harassment monitors the matters of conduct and discipline. The committee is chaired by the Principal, Senior faculties of the institute and student representatives to avoid any undue

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incidences of ragging in the college. The names of the committee members along with their mobile numbers are displayed at prominent places in the institution. Any student can lodge a complaint without disclosing his/her identity in case of any in-convenient incident.

Discipline Committee: This committee plays a vibrant role in the maintenance of discipline of the complete campus. In day to day functioning of the college as well as any special occasion or any program, this committee's presence and control is mandatory.

1.3.2 Number of value added courses imparting transferable and life skills offered during the last five years

Response: 10

1.3.2.1 Number of value-added courses imparting transferable and life skills offered during the last five years

Response: 10

File Description

Details of the value-added courses imparting transferable and life skills

Brochure or any other document relating to value added courses.

View Document

View Document

1.3.3 Percentage of students undertaking field projects / internships

Response: 16.29

1.3.3.1 Number of students undertaking field projects or internships

Response: 196

File Description	Document	
List of students enrolled	View Document	
Institutional data in prescribed format	View Document	

1.4 Feedback System

1.4.1 Structured feedback received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni and 5) Parents for design and review of syllabus-Semester wise/ year-wise

A.Any 4 of the above

B.Any 3 of the above

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C. Any 2 of the above

D. Any 1 of the above

Response: C. Any 2 of the above

File Description	Document	
Any additional information	<u>View Document</u>	
URL for stakeholder feedback report	<u>View Document</u>	

- 1.4.2 Feedback processes of the institution may be classified as follows:
- A. Feedback collected, analysed and action taken and feedback available on website
- B. Feedback collected, analysed and action has been taken
- C. Feedback collected and analysed
- D. Feedback collected

Response: B. Feedback collected, analysed and action has been taken

File Description	Document	
Any additional information	View Document	
URL for feedback report	View Document	

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average percentage of students from other States and Countries during the last five years

Response: 16.1

2.1.1.1 Number of students from other states and countries year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
149	149	180	236	249

File Description	Document
List of students (other states and countries)	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

2.1.2 Average Enrollment percentage (Average of last five years)

Response: 64.01

2.1.2.1 Number of students admitted year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
320	361	400	440	412

2.1.2.2 Number of sanctioned seats year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
624	624	624	624	540

THE DOLLAR	B 4
File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Any additional information	View Document

2.1.3 Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years

Response: 88.3

2.1.3.1 Number of actual students admitted from the reserved categories year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
201	292	298	286	260

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Any additional information	View Document

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners

Response:

The City Engineering College has a routine of assessing learning levels using Revised Blooms Taxonomy (RBT). All the programmes are currently running under CBCS scheme where every unit of learning is called a Module. Each module will be assessed for RBT levels and is also mapped with POs. Every course has its course objectives and course outcomes clearly defined. Three formative assessments CIEs are conducted every semester and the average score of the three Tests and three Assignments computes the total CIE of a Student. Students are contrained to answer all the Modules both at the formative CIE level as well as final SEE level. While the Institution is attempting to adopt OBE in toto, the current practice is to assess students learning levels based on VTU stipulated limits.

Attendance and acheiving learning expectations are largly depend on each other. Our institution has Student Information Portal (pupilpod) in which all the data about student will be available. Every student is given separate login and password in the pupilpod portal. The details of the students attendance and test marks are available in the student information portal. From this information and personal interaction in the class room, faculty will identify the slow learners and advanced learners. Slow learners are largly class absentees requiring counseling and desciplinery action while the Advanced learners require encouargemnt to perform further. The following detailed remedial measures are followed.

Slow learners:

The department has provision of surprise tests through which faculties can identify slow learners. The attendance and performances in the internal tests of the slow learners are informed to their parents through

group SMS on ERP portal. For the identified slow learners additional classes (tutorial and remedial class) are being conducted to improve their academic performance. Tutorial and remedial classes are conducted to enhance the understanding skills. Question bank will be provided for such students in order to prepare them for the exams with frequently asked questions. The proctorwill counsel the student to find if the student has any other problem and resolve it.

Advanced learners:

Advanced learners are recognized through interactive classroom teaching and classroom discussions. The department also has provision of class tests and quiz through which faculty can identify advanced learners. Department identifies and responds to special educational / learning needs of advanced learners by suggesting various project activities. The students also get opportunity to participate in several national events. The students are constantly encouraged and guided for preparation of various competitions. The students are also encouraged to participate in symposiums, paper presentations, poster presentation and quiz contests. Department respond to learning needs of advanced learners by organizing guestlectures, technical talksand industrial visits .Such students are provided with the additional training aids such as reference books, e-journals in the library. They are given the opportunity to utilize the laboratories in the extended hours and they will be encouraged and taught to do the experiments beyond the syllabus. A few students have achieved University Ranks as a testimony of our efforts in encouraging Advanced learners.

2.2.2 Student - Full time teacher ratio

Response: 11.14

2.2.3 Percentage of differently abled students (Divyangjan) on rolls

Response: 0

2.2.3.1 Number of differently abled students on rolls

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

2.3 Teaching- Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Response:

Students-centric learning has seen more impetus in the newly introduced Model curriculum for 2018-19. However, the Institution has been fecilitating students effectively for many years to sustain experimental learning through Project exhibitions, Innovative Projects and Industry Interneship assignents. Every year, Battle of science competition for fresh batch of first year students is conducted. Students are asked to come out with their innovative Ideas and to present it in the form of models. This programme has been a grand success in promoting experimental learning.

Participative learning is promoted by various methods to involve students to learn in a team. Project work and Lab work make students to learn by interacting with each other and yet account for individual contribution. NSS camps help them a lot to learn participative skills and inculcate human values.

In order to improve problem solving skills, hackathon competitions are organised by posing IT problems of advanced area to provide solutions. The learning is being made student centric by supporting the students at various levels. The students are encouraged to interact with the class teachers and the proctors regularly when there is a need. Self-learning/ experiential learning components have been introduced in which innovative topics are discussed in the class. Students are encouraged to organize technical events such as debugging/tech quiz/coding. Seminars /Guest Lectures/ Conferences are organized so that the students refer many journals and reference books for seeking additional information. Internships help students to acquire deeper understanding, both theoretical and practical. To improve problem solving skills students are encouraged to do project and showcase their talent in project exhibition.

2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

Response: 97.22

2.3.2.1 Number of teachers using ICT

Response: 105

File Description	Document
List of teachers (using ICT for teaching)	View Document
Provide link for webpage describing the "LMS/ Academic management system"	View Document

2.3.3 Ratio of students to mentor for academic and stress related issues

Response: 11.14

2.3.3.1 Number of mentors

Response: 108

File Description Document

Any additional information View Document

2.3.4 Innovation and creativity in teaching-learning

Response:

In order to impart more innovative approaches in the teaching-learning process, the institution motivates all

the faculty members to attend FDPs, National and International Seminars, Conferences/Workshops organized by reputed institutions. Working prototype models are also shown in the class rooms, Quiz, unit test, open book test, surprise test, group discussions, and assignments, Powerpoint Presentations, surveys and demonstrations are also incorporated in teaching methodology. In the laboratory oriented courses, students are given the freedom to conduct certain experiments, to strengthen the theoretical concepts they are taught in the class room, under the supervision and guidance of the faculty laboratory incharges. Variety of software tools, systems with internet down loading facility are made available to the faculty to enable them to teach certain topics through extensive simulation techniques. Apart from classroom interactions, the students undergo industrial visits, paper presentation, and take up paper publication etc., and faculty give them guidance in all such activities so that the class room learning is effectively and innovatively supplemented.

Teaching-learning is all about a creative activity requiring efforts from making contents of learning simple, easy and comprehensive to the effective Knowlege dissemination through learning. Teachers at City Engineering College practice several creative methods to achieve required learning among students. Following are some of the creative methods. 1.Asking students to prepare for one hour presentation in a class room enhances student confidence and creative learning abilities. 2.Open book tests makes students to develop habit of refrerence, interpretation and written presentation. 3. Use of ICT for learning-promoting interactive learning 4. A new Lab called Basic Technology Lab has been started to provide first hand experience to students on Basic Technology involving all programmes of the institution. 5. Industrial visits and field trips enhance learning in students.

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

Response: 91.49

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	View Document
List of the faculty members authenticated by the Head of HEI	View Document

2.4.2 Average percentage of full time teachers with Ph.D. during the last five years

Response: 7.52

2.4.2.1 Number of full time teachers with Ph.D. year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
14	12	8	8	7

File Description	Document
List of number of full time teachers with PhD and number of full time teachers for 5 years	View Document
Any additional information	View Document

2.4.3 Teaching experience per full time teacher in number of years

Response: 44.39

2.4.3.1 Total experience of full-time teachers

Response: 4794.2

2.4.4 Percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

Response: 46.83

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
55	2	2	6	0

File Description	Document
Institutional data in prescribed format	View Document
e-copies of award letters (scanned or soft copy)	View Document

2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years

Response: 12.13

2.4.5.1 Number of full time teachers from other states year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
13	12	13	26	27

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	View Document
Any additional information	View Document

2.5 Evaluation Process and Reforms

2.5.1 Reforms in Continuous Internal Evaluation(CIE) system at the institutional level

Response:

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 sofware is done. The parents are intimated through SMS about their ward's 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

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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 the college.

2.5.2 Mechanism of internal assessment is transparent and robust in terms of frequency and variety

Response:

The Mechanism of Continuous Internal Evaluation is trasparent and robust. Three aspects are found conspicuous at CEC that stands testimony to its transparent and robust handling of CIE process. 1. Prior announcement to students about IA procedure and the regulations governing it. 2. Prior intimation of dates of IA Tests through ERP portal and official Calendar of Events. 3. Centralised conduction of CIE Tests handled by Exam committee with strict compliance to norms. 4. On time evaluation with scheme of evaluation well prepared and Blue Book display to students within three days of the test.

On the Induction day, all the first year students and parents are made aware of the Internal Assessment and Evaluation procedure. .The academic calendar of the institute is prepared in relevance with the university calendar.

The internal assessment dates are announced well in advance prior to the commencement of the semester in the calendar of events. The CIE Tests are conducted centrally. The Institute has separate Examination cell comprising of senior faculty members and non-teaching staff members. The Question papers are set by course coordinators confidentially and are handed over to Principal's custody well in advance who keeps it in Strong room. The QPs are handled with confidentiality and taken out from strong room only a few minutes before for distribution. Pattern of question papers for internal assessment are same as that of the university exam. Blooms taxonomy is followed while setting the question paper and the questions are mapped with their relevant course outcomes. The record of the number of answer scripts of each department are done by separate team. All the students are aware of the examination system and the procedure. B-forms are maintained for exam hall which can be available for refrence by concerned faculty any time.

The Institution puts its best effort to have transparency in the internal assessment marks, which is displayed in pupilpod after every Internal exams are over. The test answers, scheme of evaluation and model papers are discussed in the class. During Blue Book display and verification of CIE marks by students, students get opportunity to discuss the performance in the tests with the concerned teachers.

Students shall have strict compliance with the VTU regulations for minimum marks in CIE. As per the University directions, weightage is given to attendance, student performance in tests and assignments. If Attendance to any theory or Practical classes is less than 85%, such students are not eligible to SEE and are declared as Not Satisfaying Attendance Requirements (NSAR). Similarly the shortage of CIE marks less than 50% attracts Not Satisfying Sessional Requirement (NSSR) status where students are not allowed to SEE in such practical course. Of-late VTU has introduced minmum marks for Theory Internals also as 40% of the maximum IA. This speaks of robust feature in CIE process. The performance of the students regarding the internal test marks and attendance are entered in the pupilpod. The parents are informed about the internal assessment marks through SMS and counsellors invite them for any queries..

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2.5.3 Mechanism to deal with examination related grievances is transparent, time-bound and efficient

Response:

The City Engineering College has a mechanism to handle examination related Grievances. There are grivances concerning CIE Tests and VTU exams (SEE).. For any CIE related grievance, a student can approach HODs or Principal in written form stating clearly the Grievance. The redressal of such problems normaly happens quickly within a day. VTU related grievances also require request letters to Principal who handles this through a VTU Coordinator of the Institute. Normal time for Redressal is around a few days to a maximum of one week.

University level grievance redressal:

Immediately after a particular exam, if there are questions from 'out of syllabus', or if there is any error in the question, question paper being tough, students can inform their grievance to the subject faculty who in turn writes a letter to Registrar (Evaluation) duly signed and forwarded by the Principal.. The registrar (Evaluation) shall do the needful as per the standard practice. Also, after exams, VTU notifies calling for the Revaluation applications with deadlines. Students can apply for revaluation of their semester examination answer paper in a theory course within two weeks from the declaration of results, if they are not satisfied with the first evaluation. Students can also apply for the photocopy of their answer scripts and discuss with their respective course faculty. If the answer script deserves more marks than the awarded marks in the first evaluation, students can apply for review with the recommendation of the HOD of the respective department. As per university norms revaluation is not permitted for practical courses and project work. Revaluation results generally take a month to process. Prof. AurobindoKoti - University Examination Coordinator takes care of most of the grievances in consultation with the Principal. Students can also air their exam related grievances through online web portal which are handed by our web coordinator Prof. Vivek Reddy

2.5.4 The institution adheres to the academic calendar for the conduct of CIE

Response:

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

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exams on an alternate date and the same is intimated to all concerned through circulars.

ŀ		Т		
	File Description		Document	
	Link for Additional Information	V	iew Document	

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 on website and communicated to teachers and students

Response:

Yes, Program outcomes, program specific outcomes and course outcomes for all programs are displayed on the website and also communicated to students. The Dissemination of these Out comes are done in all departments, Labs and Class rooms . These outcomes are also widely publicized through

- Display boards in various departments and corridors
- Department notice boards/Magazines/Lab Manuals/Department newsletters.
- Principal (IQAC-chairman) also creates awareness periodically.

The POs are stated as per NBA stipulation for Graduate Programme. The programme specific out comes (PSOs) are stated separately for each UG Programme. Teachers and students are communicated about these outcomes during the awareness lectures by Principal on accreditation of the Institution.

File Description	Document
COs for all courses (exemplars from Glossary)	<u>View Document</u>
Link for Additional Information	View Document

2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution

Response:

The Institution is yet to go for NBA accreditation. However evaluation of attainment levels of these oucomes are done using Direct Methods.

The assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes are as mentioned below:

Method of assessment of POs / PSOs The program outcomes and Program Specific outcomes are assessed with the help of course outcomes of the relevant courses through direct and indirect methods.

Direct methods are provided through direct examinations or observations of student knowledge or skills against measurable course outcomes. The knowledge and skills described by the course outcomes are mapped to specific problems on University Examination, internal exams and home assignment. Throughout the semester the faculty records the performance of each student on each course outcome. Average attainment in direct method = University Examination (80%) +Internal assessment (20%) Indirect assessment strategies are implemented by embedding them in Student Survey, Employer Survey and Alumni Survey. Few of the POs are assessed based on relevant developed rubrics. Finally, program outcomes are assessed with above mentioned data.

File Description	Document	
Any additional information	View Document	
Link for Additional Information	View Document	

2.6.3 Average pass percentage of Students

Response: 94.38

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 302

2.6.3.2 Total number of final year students who appeared for the examination conducted by the institution

Response: 320

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	<u>View Document</u>

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response:

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1 Grants for research projects sponsored by government/non government sources such as industry, corporate houses, international bodies, endowment, chairs in the institution during the last five years (INR in Lakhs)

Response: 6.52

3.1.1.1 Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years(INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
5.84	.40	.28	0	0

File Description	Document
List of project and grant details	View Document
e-copies of the grant award letters for research projects sponsored by non-government	View Document

3.1.2 Percentage of teachers recognised as research guides at present

Response: 0.93

3.1.2.1 Number of teachers recognised as research guides

Response: 01

File Description	Document
Any additional information	View Document

3.1.3 Number of research projects per teacher funded, by government and non-government agencies, during the last five year

Response: 0.6

3.1.3.1 Number of research projects funded by government and non-government agencies during the last five years

Response: 25

3.1.3.2 Number of full time teachers worked in the institution during the last 5 years

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Response: 209	
File Description	Document
Supporting document from Funding Agency	View Document
Funding agency website URL	View Document

3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations including incubation centre and other initiatives for creation and transfer of knowledge

Response:

YES, The Institution has made its humble effort to develop an echo system for Innovations. The Prominent efforts among them are;

- 1. Encouraging innovation through Students Projects. and Exhibitions.
- 2. Encouraging Innovation by creating Project and Internship repository for students' access.
- 3. Conducting Innovation related programmes for fresh batch of students.
- 4. Starting of Basic Technology Lab to expose fresh students to Basic Technology Components.
- 5. Encouraging participation of students in inter collegiate/KSCST project competitions/Conferences.
- 6.Industry visits for exposing students to feel Industry environment.
- 7. Industry-Institute-Interaction cell to promote innovative projects through Internships.

At City Engineering College, several projects are funded by KSCST and VGST. Prominenet among them is the VGST grant for Rs.5Lakhs.for the Department of Mechanical engineering for the year 2017-18. The project is on echofriendly IC engine which produces Green Energy using new combustible fuel other than conventional petrol/diesel. The focus of innovation is to evaluate IC Engine performance under the usage of new fuel using a software interface. Every year project Exhibitions are conducted where all the final year projects are displayed. Best projects are awarded suitably.

In order to have easy access to Student Projects, a repository or Incubation cell has been operative. All the earlier students projects and Internships of all the Programmes are available for access. Faculty from each department will be assisting students in selecting most suitable and innovative project.

For fresh batch of students, Innovative programmes like 'Battle of Science' is conducted. Students are asked to think and model their best project for presentation. Faculty involves in giving Ideas and help them build model project. This has been successful in bringing out the best Ideas among students and promote Innovation skills.

The Institution ecourages students to present their projects in competions. Many of our projects have won prizes in the Intercollegiate competitions.

Internships have been a part of Innovation endeavor for students through knowledge sharing with industries. Every student mandatorily undergo Internship training for four weeks in any Industry relevant to his programme domain. Industry Interaction cell promote Interships.

File Description	Document
Link for Additional Information	View Document

3.2.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the last five years

Response: 0

3.2.2.1 Total number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
0	0	0	0	0

File Description	Document
List of workshops/seminars during the last 5 years	<u>View Document</u>

3.3 Research Publications and Awards

3.3.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research

Response: No

File Description	Document	
Institutional data in prescribed format	View Document	

3.3.2 The institution provides incentives to teachers who receive state, national and international recognition/awards

Response: No

3.3.3 Number of Ph.D.s awarded per teacher during the last five years

Response: 2

3.3.3.1 How many Ph.Ds awarded within last five years

Response: 2

3.3.3.2 Number of teachers recognized as guides during the last five years

Response: 1

File Description	Document
URL to the research page on HEI web site	View Document
List of PhD scholars and their details like name of the guide, title of thesis, year of award etc	View Document

3.3.4 Number of research papers per teacher in the Journals notified on UGC website during the last five years

Response: 0.53

3.3.4.1 Number of research papers in the Journals notified on UGC website during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
4	5	26	31	8

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document

3.3.5 Number of books and chapters in edited volumes/books published and papers in national/international conference proceedings per teacher during the last five years

Response: 0.34

3.3.5.1 Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1	2	19	17	8

File Description	Document
List books and chapters in edited volumes / books published	View Document

3.4 Extension Activities

3.4.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years

Response:

The City Engineering College conducts regular Extension activities such as reaching out to neghbouring social groups and sensitising students for society and holistic personality development.

Extension activities:

The Institution organizes career guidance program to create awareness among the school students. This helps them for choosing their career oriented courses after completing the school education. Organizing NSS village camp where cleaning and sanitizing around neighborhood villages is done. Awareness by role play about cleanliness, water loss and other public safety is demonstrated. Institution organizes health awareness and health checkup camps for senior citizens. NSS Unit also organizes a Special camp every year for 7 days in nearby adopted village covering issues like health education, literacy, traffic awareness etc to the village people. Involvement of the faculty, student and also neighboring institute for raising various charity activities and relief funds during natural calamities

Sensitising students for Social Issues & Holistic Development:

The Institute has a NSS Unit with a total strength of 100 volunteers admitted for two years of regular social service. NSS organizes several social service and community development programmes which inculcate social responsibility and service motto in the minds of students. Every year, the college NSS Unit organizes a blood donation camp in coordination with RED CROSS SOCIETY. Several other programmes such as Tree Plantation on the occasion of World Environment Day and Blood Donation Camps are conducted every year. Yoga classes, athletic and nonathletic events are conducted for Students every year.

File Description	Document
Link for Additional Information	<u>View Document</u>

3.4.2 Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years

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Response: 4

3.4.2.1 Total number of awards and recognition received for extension activities from Government /recognised bodies year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1	1	1	1	0

File Description	Document
Number of awards for extension activities in last 5 years	View Document
e-copy of the award letters	<u>View Document</u>

3.4.3 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

Response: 44

3.4.3.1 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
10	18	5	5	6

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach programs conducted with industry, community etc for the last five years	View Document
Any additional information	View Document

3.4.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

Response: 53.55

3.4.4.1 Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. yearwise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
500	600	750	900	500

File Description	Document
Report of the event	<u>View Document</u>
Average percentage of students participating in extension activities with Govt or NGO etc	View Document
Any additional information	View Document

3.5 Collaboration

3.5.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc during the last five years

Response: 31

3.5.1.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
5	9	12	2	3

File Description	Document
Number of Collaborative activities for research, faculty etc	View Document
Copies of collaboration	View Document

3.5.2 Number of functional MoUs with institutions of National/ International importance, Other Institutions, Industries, Corporate houses etc., during the last five years (only functional MoUs with ongoing activities to be considered)

Response: 15

3.5.2.1 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years (only functional MoUs with ongoing activities to be considered)

2017-18	2016-17	2015-16	2014-15	2013-14
1	3	5	3	3

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	View Document
Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The institution has adequate facilities for teaching- learning. viz., classrooms, laboratories, computing equipment, etc.

Response:

Adequate facilities for TEACHING-LEARNING:

The College is situated in a prime locality with very good transport facilities. This helps to have easy reachout to the institution from all nooks and corners of the city. The college is situated on a sprawling 11acres 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 facilitity for conducting Seminars, Group discussions and Interviews. Teaching-learning is further enhanced by providing E-SHIKSHANA Centre for e-learning.

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File Description	Document
Link for Additional Information	<u>View Document</u>

4.1.2 The institution has adequate facilities for sports, games (indoor, outdoor),gymnasium, yoga centre etc., and cultural activities

Response:

The institution believes that an active involvement in the physical activities enhances mental strength of the students and therefore encourages sports and cultural events for all the students of the college as co-curricular activities.

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 Hon.Chairman Dr.K.R.Paramahamsa.

File Description	Document
Link for Additional Information	View Document

4.1.3 Percentage of classrooms and seminar halls with ICT - enabled facilities such as smart class, LMS, etc

Response: 40.48

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 17

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	View Document
Link for additional information which is optional	View Document

4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.

Response: 8.29

4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
20.56358	101.77056	85.41679	14.98131	0

File Description	Document
Details of budget allocation, excluding salary during the last five years	View Document
Audited utilization statements	View Document

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS)

Response:

The Institution Library is Automated using Integrated Library management system (ILMS)

Our library stands excellent in terms of Quality books, journals, learning materials and other technologyaided learning mechanisms which enable students to acquire knowledge and information for their academic progression. The modern day developments have lead towards digitalization. The functioning of the library has undergone a drastic change. Automation of library using the ILMS, use of e-journals and books, providing remote access to e-resources in the library have become a matter of necessity. Library has been automated using latest software to make the functioning of library easy and effective.

The well maintained college library is enriched with a huge collection of valuable books. The central library was automated by the LIBSOFT software in 2014. The software consists of various modules on acquisition, cataloging, circulation, serials control, and Online Public Access to Cataloguing (OPAC). The new version enables the librarian to issue, renewal of books, maintain the database of books, journals, and to maintain the data of students and faculty who utilize the library resources.

The library assists faculty and students for various other activities such as Reference Service, Digital Library Service, OPAC (Online Public Access to Cataloguing for Book Search) Service, Previous Question Papers Access, E-Book Services, DELNET and Reports of best projects carried out by students. The Library also houses rare collection of books. The Library has adequatly large reference section and reading room.

File Description	Document
Link for Additional Information	View Document

4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resources for library enrichment

Response:

The institution Library consists of rare books and other Knowledge resourses.

Our library is also equipped with a wide range of rare books to provide faculty and students an enriched experience. The non-academic books range from wide topics that could contribute to the development of faculty and students. The library is also equipped with **GATE books**, **Hand books**, **GRE**, **TOFL Books**. Rare books which are not available in print are preserved for reference. Many Lecture series on courses in Engineering and Technology beamed by EDUSAT are preserved on CDs in the digital library. The Affiliating University has now discontinued with EDUSAT programme, the Institute has now started with E-SHIKSHANA Programme. It is an Interactive platform for viewing technical programmes through SEMINARS, WEBINARS and Conferences. VTU sanctioned an amount of Rs.25000/-for upgrading to E-SHIKSHANA Platform. The institution is also in pocession of Language lab equipped with recent software on interactive learning.

File Description	Document
Link for Additional Information	<u>View Document</u>

4.2.3 Does the institution have the following:

- 1.e-journals
- 2.e-ShodhSindhu
- 3. Shodhganga Membership
- 4.e-books
- 5. Databases
- A. Any 4 of the above
- B. Any 3 of the above
- C. Any 2 of the above
- D. Any 1 of the above

Response: C. Any 2 of the above

File Description	Document
Details of subscriptions like e-journals,e- ShodhSindhu,Shodhganga Membership etc	View Document
Any additional information	View Document

4.2.4 Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)

Response: 11.09

4.2.4.1 Annual expenditure for purchase of books and journals year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
14.62641	14.69045	9.84121	12.04446	4.26648

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	View Document
Audited statements of accounts	<u>View Document</u>
Any additional information	<u>View Document</u>

4.2.5 Availability of remote access to e-resources of the library

Response: Yes	
File Description Document	
Any additional information	View Document

4.2.6 Percentage per day usage of library by teachers and students

Response: 2.52

4.2.6.1 Average number of teachers and students using library per day over last one year

Response: 33

File Description	Document
Any additional information	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

IT Facilities are frequently updated at CEC to catch up with the advacement in Technology.

The updating of IT facility is inevitable in a fast growing era of IT industry. Periodically VTU prescribes latest configuration computers and softwares in the syllabus. Newer Labs are to set up with designated configurations of IT equipments. The Institution has been updating frequently its IT facilities as per VTU stipulations and even beyond that in some of the Labs. The college has adequate number of Wi-Fi hotspots and a band width of 100Mbps. ALL Computers in the campus are LAN connected and most of them are INTERNET connected..

Many class rooms are equipped with LCD facilty for better teaching-learning process. Almost all Class rooms are provided with CCTV cameras for increased vigilence during CIE Tests and VTU Exams. Admin block and campus entrance gates are also equipped with CCTV survellance.

4.3.2 Student - Computer ratio

Response: 2.67

File Description	Document
Any additional information	View Document

4.3.3 Available bandwidth of internet connection in the Institution (Lease line)

>=50 MBPS

35-50 MBPS

20-35 MBPS

5-20 MBPS

Response: >=50 MBPS

File Description	Document
Any additional information	<u>View Document</u>

4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)

Response: No

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

Response: 27.9

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
200.83820	100.00981	114.25620	135.26280	157.19026

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	View Document
Audited statements of accounts.	View Document

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Response:

The college has given priority towards maintenance a disciplined atmosphere in and around the campus. Several personnel have been appointed for maintaining the infrastructure such as building maintenance, transport, furniture and generator operator in case if the power shuts down. Supervisors are appointed to extend their services like electrical, plumbing, housekeeping etc. The people, who work here on maintenance of the college, will report regularly about the breakage of instruments and devices to the higher authority. To ensure a constant power supply to all the laboratories a high capacity Generator is been installed at a suitable location in the college. To ensure a pollution free environment, a non pollutant generator named Green generator of Kirloskar Company is installed. The students are taken care by providing them with very clean water and for attaining that an RO plant for constant Water supply 1000 LPH is mounted inside the premises nearby to college canteen. Students and faculty members are provided separate login credentials to access the intranet and internet. Access to internet is provided in the lab even after college working hours. Apart from the regular lab classes, students are offered practice in programming languages by various value added courses which are under taken in the lab. Installation of antivirus ensures that the software and system is secured. The college has appointed Admin staff to check on the hardware and software condition of the machines and ensure they perform effectively. In case any problem is identified in the software or hardware part necessary action is taken under guidance of head of the institution for smooth functioning of academic and administrative activities. Periodic maintenance is done by regular cleaning of the lab spaces, software updates and antivirus updates. The stock in the lab is verified for the available equipments and discarded equipments, by verification process. Maintenance of mechanical, civil, electronics and computer science labs are done by the in charge teaching staff and nonteaching staff. Any services, repairs or requirements towards the lab facilities are done by a proper procedure under the directions of principal. Breakdown register is maintained in the laboratories. The measuring instruments are calibrated regularly by standards companies. The class rooms are well designed and outfitted with sufficient number of desks/benches to accommodate the students comfortably. Some of the class rooms are equipped with LED projector/screens to expose the students towards subject related animation and video graphic programs. Students have been motivated to take part in all the sports activity conducted by either VTU or college and other colleges. The sports coordinator involves him in identifying the student's talent and coordinates with various colleges and university towards the participation of sports events.

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years

Response: 40.24

5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
579	686	516	343	339

File Description	Document
Upload self attested letter with the list of students sanctioned scholarships	View Document
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	View Document

5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years

Response: 0.23

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
14	0	0	0	0

File Description	Document
Any additional information	<u>View Document</u>

5.1.3 Number of capability enhancement and development schemes –

- 1. For competitive examinations
- 2. Career counselling

- 3. Soft skill development
- 4. Remedial coaching
- 5. Language lab
- **6.Bridge courses**
- 7. Yoga and meditation
- 8. Personal Counselling
- A. 7 or more of the above
- B. Any 6 of the above
- C. Any 5 of the above
- D. Any 4 of the above

Response: C. Any 5 of the above

File Description	Document
Details of capability enhancement and development schemes	View Document
Link to Institutional website	<u>View Document</u>

5.1.4 Average percentage of student benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years

Response: 5.83

5.1.4.1 Number of students benefited by guidance for competitive examinations and career counselling offered by the institution year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
155	217	0	0	0

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	View Document
Any additional information	View Document

5.1.5 Average percentage of students benefited by Vocational Education and Training (VET) during the last five years

Response: 0

5.1.5.1 Number of students attending VET year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
0	0	0	0	0

File Description	Document
Details of the students benifitted by VET	<u>View Document</u>

5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases

Response: Yes

File Description	Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document
Details of student grievances including sexual harassment and ragging cases	View Document

5.2 Student Progression

5.2.1 Average percentage of placement of outgoing students during the last five years

Response: 18.57

5.2.1.1 Number of outgoing students placed year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
79	86	64	40	13

File Description	Document
Self attested list of students placed	View Document
Details of student placement during the last five years	View Document

5.2.2 Percentage of student progression to higher education (previous graduating batch)

Response: 2.92

5.2.2.1 Number of outgoing students progressing to higher education

Response: 10

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education	View Document

5.2.3 Average percentage of students qualifying in State/ National/ International level examinations during the last five years (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

Response: 0

5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil services/ State government examinations) year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
0	0	0	0	0

5.2.3.2 Number of students who have appeared for the exams year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
0	0	0	0	0

File Description	Document
Number of students qualifying in state/ national/ international level examinations during the last five years	View Document

5.3 Student Participation and Activities

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

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/ international level (award for a team event should be counted as one) during the last five years.

Response: 0

5.3.1.1 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-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
0	0	0	0	0

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	View Document

5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution

Response:

Active students council exists at CEC. Every class consists of two nominated representatives who are a part of maitaining class descipline 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 Swach 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.

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.

5.3.3 Average number of sports and cultural activities/ competitions organised at the institution level per year

Response: 3.4

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
7	5	5	0	0

File Description	Document
Report of the event	View Document
Number of sports and cultural activities / competitions organised per year	View Document

5.4 Alumni Engagement

5.4.1 The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years

Response:

CEC has a Registered and Functional Alumni Association:

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. The alumni meet is conducted where the alumni from different branches of the under graduate share their views and give

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suggestions for the betterment of their junior students. The alumni meet is hosted by the management generously and the alumni are honored with mementos. Alumni meetings are mutually beneficial for the Institution and the alumni. This provides an opportunity for the alumni to meet their friends and act as a bridge for the faculty to share their experience, knowledge and insights.

Successful entrepreneurs from the alumnus are invited to talk on their success stories at various occasions of the Institute. The alumni also help the final year students of the various streams of engineering, business administration and computer applications to get their project placements and summer internship in their companies or to assist them get it through their reference. The regular alumni association meetings overlay the way for the successful placements of the students. Next Alumni meet is planned to be held on 2nd March 2019.

File Description	Document
Link for Additional Information	View Document

5.4.2 Alumni contribution during the last five years(INR in Lakhs)

? 5 Lakhs

4 Lakhs - 5 Lakhs

3 Lakhs - 4 Lakhs

1 Lakh - 3 Lakhs

Response: <1 Lakh

File Description	Document
Alumni association audited statements	<u>View Document</u>

5.4.3 Number of Alumni Association / Chapters meetings held during the last five years

Response: 1

5.4.3.1 Number of Alumni Association /Chapters meetings held year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
0	1	0	0	0

File Description	Document
Number of Alumni Association / Chapters meetings conducted during the last five years	View Document
Report of the event	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the institution

Response:

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, this leads to Technological and Socio-economical growth.
- M3. To Provide Guidance for a Productive Career under various programmes.

Description:

The Governance is effectiveness and is reflected in the areas of Academic Governance through Knowledge dessimination, Innovation and Administrative aspects.

Effective governance is in place at City Engineering College and everyone from different levels of governance participates in decision making. Regular governing body and governing council meetings are held to review important issues concerning the performance of the institution. The governing council meets twice a year to review implementation and plan for staff requirement, budgeting, and purchase of equipments for academic needs. The governing council also reviews the quality performance of the institution through inputs such as faculty feedback and academic results. Senior professors have been included as members in the governing council and also participate in the decision making on the various issues concerning the institutional quality development.

The institution provides opportunity to student community for learning through online resources through ERP. Regular parent meetings are conducted to obtain their inputs on quality issues and attempt to implement the quality requirement. A few examples such as RO drinking water, and lift for vertical commutation are being implemented based on the suggestion of the parents. The institution believes in continuous improvement and provides opportunities for higher studies and placement. The faculty members are encouraged to take up higher studies and are also deputed to various conferences and workshops in order to enhance their academic quality and performance.

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Governance is effective even at the classroom levels of the institution. Every class is provided with a class teacher and academic counselors. Student representatives of each class report to the class teacher on academic issues concerning them, who in turn redress the grievance in consultation with HOD and the principal. Ours is an affiliated institution and the affiliating university revises curriculum once in four years based on the needs of the advancing technology. Currently the institution follows model curriculum as proposed by AICTE for 2018-19 batch of students. The model curriculum is designed as per outcome based education model. The model curriculum takes into account the advancing technology and practical exposure of knowledge skill and behavior to the students. The institution looks forward to become a model institution

The Vision/Mission of the institute is well mapped in to Vision/Mission and PEOs of the various Programmes in order to establish better academic governance and to achieve Vision through accountable and sustainable Mission activities.

File Description	Document
Link for Additional Information	View Document

6.1.2 The institution practices decentralization and participative management

Response:

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 contigencies 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

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.

File Description	Document
Link for Additional Information	<u>View Document</u>

6.2 Strategy Development and Deployment

6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution

Response:

Perspective/Strategic plan and deployment documents are available in the institution.

Auditorium Construction stands testimony as one of the examples for Strategic Plam and deployment. The issue was proposed and was accepted by GC.

Example of **Strategic Development and Deployment**— Auditorium Construction

Proposal for Auditorium construction of 1000 seating capacity was put forward in 2016 and was immediately accepted by the management. Works were started immediately to meet the goal of completing the construction for use by 2017 August.

The total area of auditorium covers 9315 Sq Ft, has a seating capacity of 1000 persons.

Expenditure for construction works is as follows

Civil Works	22,00,000 Lakhs	
Flooring	8,00,000 Lakhs	
Tiles Laying	10,00,000 Lakhs	
Sliding Glass Windows	4,07,338 Lakhs	
Furniture Fixtures	10,00,000 Lakhs	
Sound System	4,25,000 Lakhs	
Total Cost	59,00,000 Lakhs	

Total Area – (117'51''*51' ft) 9315 Square Feet

The auditorium was constructed by august 2017 well within deadline with a total expenditure of 59,00,000 lakhs which includes both civil works as well as decorative and furniture works. The inauguration function

of auditorium was held on orientation program for first year students and was inaugurated by Hon.Chairman Dr.KR Paramahamsa Sir. Thus the construction of Auditorium can be taken as an example for Strategic Plan, Development and Deployment of a work in the institution.

File Description	Document
Any additional information	View Document
Strategic Plan and deployment documents on the website	<u>View Document</u>
Link for Additional Information	View Document

6.2.2 Organizational structure of the institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism

Response:

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 Kalluri and Executive Vice-president Rahul Kalluri. This is followed by Governing Council which includes, the Principal City Engineering college as Exofficio 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 discus 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, desciplinary 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 systen is active and functioning well as a valuble tool for academic Administration.

	File Description	Document
	Any additional information	View Document

6.2.3 Implementation of e-governance in areas of operation

- 1. Planning and Development
- 2. Administration
- 3. Finance and Accounts
- 4. Student Admission and Support
- 5. Examination
- A. All 5 of the above
- B. Any 4 of the above
- C. Any 3 of the above
- D. Any 2 of the above

Response: B. Any 4 of the above

File Description	Document
Screen shots of user interfaces	View Document
ERP Document	View Document
Details of implementation of e-governance in areas of operation Planning and Development, Administration etc	View Document

6.2.4 Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions

Response:

At CEC, Effective functioning of the various statutory bodies are evident through minutes of the meeting, resolutions and followup action.

The effectiveness of the various Statutory Committees are evident in the minutes of the meetings and action taken reports. The Campus is largly free from any incidents of Ragging as the Steps taken are very

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stringent. The local police is also supportive in this regard. The Institution houses almost 50% lady Faculty and 50% Girl Students who have over the period of time been existing hormoniuosly with the male counterpart without any grievance. Regular celebration of International Womens Day is held where women share their social concerns and air out their grievances if any, while on job. No such Grievances of Sexual-Harrassment been reported so far. Girl students are provided with adequate care and facilities in the Campus. SC/ST & OBC students are peaceful with out any grievances to post on the web-site or complain. There is no Drug Manace in the campus due to active role of Anti-Drug committee and the local Police providoing adequate support / information against the use of Drugs by Students.

File Description	Document
Link for Additional Information	<u>View Document</u>

6.3 Faculty Empowerment Strategies

6.3.1 The institution has effective welfare measures for teaching and non-teaching staff

Response:

EFFECTIVE WELFARE MEASURES FOR TEACHING AND NON-TEACHING STAFF OF CEC.

- Our college gives Employee Provident Fund (EPF) and **Employee's State Insurance** (**ESI**) facilities to non teaching staff members,
- Uniforms are given, twice in a year to non teaching staffs of our college.
- Our staff members are given with extraordinary periodic leave for their benefit. For example Dr. H
 N Thippeswamy, Professor and HOD, Department of Civil Engineering was given one and half month leave during vacation time to meet his family members in Abroad.
- Group insurance facility was also offered for teaching staff members with a part payment from the staff. As most of our staff members have taken health insurance policies, this group insurance for teaching staff did not come in to existence.
- Maternity leaves will be given to lady staff members. For example Mrs.Sindhushree M S Assistant professor civil engineering department and Mrs.Gayathri of mathematics department have taken maternity leave and joined their duties after the maternity leaves.
- Our management is magnanimous in giving free seats for admission to BE course in our college as well as in sister originations. free seats are provided to the children of our employees. For example: Free seat given in National Public School was given to daughter Mr.Lokesh, electrician of our college. Son of Dr.PNagabhushan, Associate Professor in civil engineering department is studying in our college with monitory benefits.

File Description	Document
Link for Additional Information	View Document

6.3.2 Average percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

Response: 1.29

6.3.2.1 Number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
3	4	0	0	1

File Description	Document
Details of teachers provided with financial support to attend conferences, workshops etc during the last five years	<u>View Document</u>
Any additional information	<u>View Document</u>

6.3.3 Average number of professional development /administrative training programs organized by the institution for teaching and non teaching staff during the last five years

Response: 0.4

6.3.3.1 Total number of professional development / administrative training programs organized by the Institution for teaching and non teaching staff year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
0	1	0	1	0

File Description	Document
Reports of Academic Staff College or similar centers	View Document
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	View Document

6.3.4 Average percentage of teachers attending professional development programs viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Program during the last five years

Response: 20.9

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
48	43	12	24	6

File Description	Document
IQAC report summary	View Document
Details of teachers attending professional development programs during the last five years	View Document

6.3.5 Institution has Performance Appraisal System for teaching and non-teaching staff

Response:

Performance Appraisal System(PAS) exists and is functional at CEC.

The over-all performance of a faculty is assessed based on the academic results in the subject handled, student feed back, publications, interest in higher studies, involvement in academic progress of the institution/department, leadership and general behaviour/attitude. Self appraisals of faculty members are also obtained and analysed.

Student feedback is taken every semester on a10 parameter scale. The performance is rated as Excellent,Good,Fair and Poor based on the rating. Normally a rating of 6 or less is rated poor and calls for remedial action. As regards results, a faculty shall fulfill 90% pass in the course/subject. Difficult to learn subjects where University pass itself is less,we expect 75% or at least above University average pass percentage.

Faculty are expected to advance in their career and achieve academically. In this direction,we expect them to register for PhD and complete within the stipulated time. AICTE is expecting to have minimum PhD or NET clearance in the ensuing years.

Teaching and research go in hands-and-gloove. Faculty members shall advance by involving themselves in Research Publications in their Domain area. This is an important consideration for Professors while appraising.

Every institute, in principle applies for Govt.Funding for Innovation and Research activities. Any faculty, particularly professors are expected to apply and bring project funds from statutory bodies such as VTU/AICTE/UGC/GoK.

Regular review visits and meeting withthe departments by the Principal happen at CEC. General guidelines and grievance redressal act takes place at the meetings .Faculty are also accessed for their participation in FDPs/Workshops/Conferences to update their domain knowlege from time to time.

Faculty are also appraised by Principal for routines such as Punctuality in handling classes, Oral feedback from students, Dress code and general behavior, Maintainance of students' attendance register, Academic file and personal file updating.

Faculty members are also assessed for Quality work in Evaluation Process. Evaluation of Blue Books after every CIE Test shall be carried out within 3 days of the test. display of Blue Books to students' is compulsory for reviewing. Faculty shall maintain strict but cordial relationship with students to achieve academic goals.

Faculty are assigned with Mentoring/Couseling work. Faculty are also appraised for better and creative counseling leading to effective measures to benefit students in resolving their problems.

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

CEC Conducts regular Internal and external audit of financial accounts.

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 non-government bodies, individuals, Philanthropists during the last five years (not covered in Criterion III) (INR in Lakhs)

Response: 0

6.4.2.1 Total Grants received from non-government bodies, individuals, philanthropists year-wise during the last five years (INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
0	0	0	0	0

File Description	Document
Details of Funds / Grants received from non- government bodies during the last five years	View Document

6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

Response:

Mobilisation of funds and Optimum utilisation of resources at CEC

Ours is a self financing private institution and is not eligible for funding from Govt.under UGC Section 12B. We apply for various funds for Innovative Projects and Development of Departments. So far,the Institution has been granted with KSCST and GoK-VGST project funds. VTU has also provided support funding for 10 Students Projects.

The main resource for the college is fees collection from the students during admissions. The institution has made optimal use of the resources for the development of the Institution over the years under stipulated heads of expenditure.

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

Response:

IQAC Cell at CEC is active and functional institutionalising the following Two Best Practices.

1. Industrial visits and 2. innovative projects & Internships

Industrial visits are arranged on a regular basis to reduce the feeling of Industry-Institute gap which is ever widening in the present context. Industry visits empowers students with knowlege of the existing Technology in manufacturing and IT sector. All Departments are advised to arrange minimum of two visits to Industries in a semester, students are provided with Transport facility for the visit. Many Public sector and multinational companies oblige to entertain our students as a matter of HR policy. The visits have been successful in motivating and empowering students with Knowledge. Vists to IISc Open DAY and Industrial exhibition at BIEC, Bangaluru has been made mandatory.

Innovative Projects are a part of Student achievement and hope of technology development. Several innovative projects have been carried out by students and all of them are showcased in the Annual College Project Exhibition. All projects shall be presented in the Exhibition and are assessed by Subject experts for Innovativeness and are awarded suitably with Prizes. Some projects are recommended for PATENT. There are many Public Sector projects where students are permitted with a view of exposure to Industry environment. As a part of IQAC endeavor, every year, the fresh students are encouraged to present new Ideas to model and present in the exhibition called Battle of Science organised by the college.

Interships have been a part of strategy to enhance student interaction with Industries. Students are suggested with intership opportunities and are given Indent letters from the institution to undergo training.

Industrial Visits Organised 2017-18:

The Department of Civil Engineering, City Engineering College, Bengaluru organized the study tour for 4th sem Civil Engineering students for studying the various structures of Dam, Reservoir, Harbour, Tunnel, Hydroelectric projects, Highway construction sites, etc., during 22-24th February 2018.

DAY – 01: 22nd February 2018: KARWAR:-(1) Karwar Port: The students visited the port for studying the structures of Dockyard, Jetti, harbor engineering, dredging methods to remove the silts in the sea floor.

- (2) Highway Tunnel: Visited the tunnel construction site at Karwar. This tunnel is constructed in igneous terrain. The tunnel is designed for national highway. The rock types observed in the tunnel site are granite and dolerite. The rock formation in the site should have joint free and no structural disturbances have been observed. The Engineer in the site has explained the design of structures and displayed the plan of tunnel site.
- (3) Bridge site at Sadashivagad: Visited the bridge construction site at an estuary point where the Kali river confluences the Arabian sea. The students have been observed the interaction between fresh water and salt water. The bridge is constructed across the Kali river between Karwar and Goa. The length of the bridge is almost 800m. The students have shown the interest in Bridge engineering.

File Description	Document
Link for Additional Information	View Document

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms

Response:

The institution reviews its teaching learning process periodically and Implements them, Two examples are

- 1. Basic Technology Lab- This is an effort to enhance understanding of basic components of technology in the core and allied ares of Engineering. The pupose is to display basic available components for a feel and understanding by students. as an example, a student may not have seen a Hard Disc drive, a Mother board or a SIMM of a PC. He may not have an idea of how a Processor in a computer look like. The lab consists of all dismantled components or models to expalin concepts. Any fresh student will come to know about the Technology in a nutshell of the other domains. All first year students are taken and shown the Lab. or Exhibition of basic items. The basic technology lab has been established in room No. 003 under the supervision and Guidance of the principal. Each Department has setup models of basic technology. The students can learn by studying the models. The concerned staff can explain the models. this types of study will create interest among the students to understand and learn the concepts. For example civil dept has kept building model in which rainwater harvesting has been maintained and Dam model to explain hydroelectric power plant, Bridge model to exhibits roads & Bridges and components of RCC to know contents of RCC
- 2. **Students centric learning approach** The students centric learning approach has been in practice to understand i) Course outcomes which student will be able to understand & learn at the end of successful completion of course ii) Course objective of each course the students. iii) the Bloom's Taxonomy (RBT) level are given for each module of the course which the students studies. The different levels of RBT for each subject. Like understanding learning will help the students to learn. The particular model up to the level required (or as Prescribed). This also helps the staff for teaching the particular module of the course. OBE is still in the begining at CEC. Through IQAC, students are given enough information about course objectives and outcomes. Faculty have been educated on OBE by the Principal (IQAC-Chairman) through his lectures on accreditaion awareness. Faculty now maintains course material, personal and Academic files as a practice. All innovative efforts are recorded in the academic file by the faculty. Students are taken to library to inculcate refrence habits in them.

File Description	Document
Link for Additional Information	View Document

6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year

Response: 2.8

6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

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2017-18	2016-17	2015-16	2014-15	2013-14
7	7	0	0	0

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	View Document
IQAC link	View Document

6.5.4 Quality assurance initiatives of the institution include:

- 1. Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements
- 2. Academic Administrative Audit (AAA) and initiation of follow up action
- 3. Participation in NIRF
- 4.ISO Certification
- 5.NBA or any other quality audit
- A. Any 4 of the above
- B. Any 3 of the above
- C. Any 2 of the above
- D. Any 1 of the above

Response: D. Any 1 of the above

File Description	Document
Details of Quality assurance initiatives of the institution	View Document
Annual reports of institution	View Document

6.5.5 Incremental improvements made during the preceding five years (in case of first cycle) Post accreditation quality initiatives (second and subsequent cycles)

Response:

The following Incremental Improvements are made during the preceding five years.

- 1. Addition of MTech Program in Computer Science and Engineering.
- 2. Adequate Class rooms, Labs and improved on-line VTU Exams.
- 3. Implementation of ERP system.
- 4. Providing Auditorium Infrastructure for more than 1000 audiences.
- 5. RO Drinking Water Treatment plant for Students and Staff use.
- 6. Free Bus facility for first year students.
- 7. Lift facility (Under final stage of commissioning)
- 8. Campus beautification-Green initiative
- 9. Well laid roads inside the Campus.
- 10. Increase in adequate ICT facilities such as increased Internet band width, Wi-fi facility, Digital transactions and latest Computers.

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Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Number of gender equity promotion programs organized by the institution during the last five years

Response: 4

7.1.1.1 Number of gender equity promotion programs organized by the institution year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
2	1	1	0	0

File Description	Document
Report of the event	View Document
List of gender equity promotion programs organized by the institution	View Document

7.1.2

- 1. Institution shows gender sensitivity in providing facilities such as:
 - 1. Safety and Security
 - 2. Counselling
 - 3. Common Room

Response:

City Engineering College provides a safe and secure environment to the girl students and lady staff.

Women Cell (WC) has been constituted to empower the safety measures for female members in the Institution. The WC works to promote gender sensitivity in the Institution and produce harmonious atmosphere on the campus. It organizes workshops and sensitization programs both for staff and students by eminent Psychologists and social workers. Basic Functions of Cell: promoting gender sensitivity in the Institution and conducting diverse programs to educate, sensitize female members.

The college organized Cylinder safety program to educate women regarding use of cylinders in the kitchen and college labs. The people from Gas company gave illustration and demonstration about the safety operation. They also gave the list of precautions to be taken in cylinder safety.

1. Counselling

The College also attends to the Grievances of the aggrieved girl students and deciphers their problems.

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All proceedings of the counseling shall be recorded. The College will provide assistance to the Faculty/Institutes/Institute for taking preventive steps in the matter of gender discrimination and sexual harassment. The college has constituted Anti sexual harassment committee which conducts meetings regularly and meets on receipt of complaints.

Our organization provides counseling to the girl students on regular basis to make them aware of:

- Safety parameters for riding two wheelers
- Use of Aprons in labs for safety purpose.
- Wearing formal shoes in Labs.
- Following Formal and decent dress code for girls to avoid conflicts

1. Common room

The institute provides common room for girls which is under security surveillance.

The common room has toilet, rest area with furniture like cots, table and chairs.

The common room has been sufficiently illuminated by sufficient tube lights. Sufficient care has been taken regarding suffocation by providing fans.

File Description	Document
Any additional information	<u>View Document</u>

7.1.3 Alternate Energy initiatives such as:

1. Percentage of annual power requirement of the Institution met by the renewable energy sources

Response: 0

7.1.3.1 Annual power requirement met by the renewable energy sources (in KWH)

7.1.3.2 Total annual power requirement (in KWH)

Response: 112020

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	View Document

7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Response: 21.1

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7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

Response: 5160

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 24456

File Description	Document
Details of lighting power requirements met through LED bulbs	View Document
Any additional information	View Document

7.1.5 Waste Management steps including:

- Solid waste management
- Liquid waste management
- E-waste management

Response:

Solid waste management:

Solid waste is collected and segregated in two separate bins as dry & wet waste. The Green-colored dustbins are meant for wet and biodegradable wastes. Red dustbins are meant for dry waste, disposal of plastic wrappers and non biodegradable wastes, papers and glass bottles. Cleaning or emptying of the dustbins is being done on a regular basis at 10:00 to 11am and 3:00 pm every day. Dried leaves and plant clippings are collected and segregated in compost pits to produce manure and which is used for gardening as organic manure to increase fertility of the soil.

Liquid waste management:

Liquid waste from kitchens, toilets are sent into BBMP Underground drainage (UGD).

E-waste management:

At the end-of computers useful life, they are collected from different locations of the campus by designated technicians. The computers are sometimes repaired and some are likely not repaired due to the level of damage. The irreparable are inspected by the authorities and it's open for disposal through e-waste management contractors or vendors for reuse / recycling purpose.

7.1.6 Rain water harvesting structures and utilization in the campus

Response:

The rain water harvesting is attempted at City engineering college. All the rooftops are designed to direct rain water to one direction and routed to a pipe. Pits are made and connectivity is pending. We are yet to decide on this as the other projects are on the way. Several projects are done in the form of Models. Rain water harvesting model is exhibited in the basic technology lab. we are contemplating on completing the project in the ensuing years. The students of civil engineering have done projects on rain water harvesting. The advantages of having RWH facility will help the organisation to use water while in scarcity for various purposes.

7.1.7 Green Practices

- Students, staff using
- a) Bicycles
- b) Public Transport
- c) Pedestrian friendly roads
- Plastic-free campus
- Paperless office
- Green landscaping with trees and plants

Response:

Public Transport:

Transport department functions in the institute with 2 buses to provide transport facility to the students and staff from different destinations. Some students & Staff opt for public transport (BMTC Bus) instead of their own transport. Few of the students & staff are car pooling/ sharing for their convenience as to save.

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.

File Description	Document
Link for Additional Information	<u>View Document</u>

7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years

Response: 0.1

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component yearwise during the last five years(INR in Lakhs)

2017-18	2016-17	2015-16	2014-15	2013-14
.515	.516	.519	.576	.49

File Description	Document
Green audit report	View Document
Details of expenditure on green initiatives and waste management during the last five years	View Document

7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:

- 1. Physical facilities
- 2. Provision for lift
- 3. Ramp / Rails
- 4. Braille Software/facilities
- **5. Rest Rooms**
- 6. Scribes for examination
- 7. Special skill development for differently abled students
- 8. Any other similar facility (Specify)
- A. 7 and more of the above
- B. At least 6 of the above

C. At least 4 of the above

D. At least 2 of the above

Response: C. At least 4 of the above

File Description	Document
Resources available in the institution for Divyangjan	View Document
Any additional information	View Document
link to photos and videos of facilities for Divyangjan	View Document

7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years

Response: 13

7.1.10.1 Number of specific initiatives to address locational advantages and disadvantages year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
2	2	2	3	4

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	View Document
Any additional information	<u>View Document</u>

7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)

Response: 3

7.1.11.1 Number of initiatives taken to engage with and contribute to local community year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
2	1	0	0	0

File Description	Document
Report of the event	View Document

7.1.12

Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff

Response: Yes

File Description	Document
URL to Handbook on code of conduct for students and teachers, manuals and brochures on	View Document
human values and professional ethics	

7.1.13 Display of core values in the institution and on its website Response: Yes File Description Document

View Document

7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations

Response: Yes

Provide URL of website that displays core values

File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	View Document
Any additional information	View Document

7.1.15 The institution offers a course on Human Values and professional ethics

Response: Yes

_	
File Description	Document
Provide link to Courses on Human Values and professional ethics on Institutional website	View Document

7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions

Response: Yes

File Description	Document
Provide URL of supporting documents to prove institution functions as per professional code	View Document

7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years

Response: 45

7.1.17.1 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
9	9	9	9	9

File Description	Document
List of activities conducted for promotion of universal values	View Document
Any additional information	View Document

7.1.18 Institution organizes national festivals and birth / death anniversaries of the great Indian personalities

Response:

City Engineering College organizes and celebrates the following festivals every year from January to December like:

- National Youth day
- Republic day
- Women's day
- Ambedkar Jayanthi
- International Blood Donation Day
- Yoga day

- Independence day
- Teachers day
- Engineers day
- Gandhi Jayanthi

City Engineering College celebrates the **National Youth day** regularly on 12th January of every year.

Engineering College celebrates the **Republic day** regularly on 26th January of every year.

City Engineering College celebrates the **Women's day** regularly on 8th March of every year. This year also women team celebrated women's day on March 8th 2018.

City Engineering College celebrates Ambedkar Jayanthi regularly on 14th April of every year.

City Engineering College celebrates **International Blood Donation Day** on 14th June of every year. Our students, faculty and non-teaching staff donated blood voluntarily and created awareness in the public.

City Engineering College has organized the **Yoga Day** on June 21st of every year in the campus and created the awareness about Yoga.

City Engineering College celebrates the **Independence Day** regularly on 15th August of every year. All the students and faculty members gather for the event and paid the tribute to our freedom fighters.

City Engineering College is celebrating the **Teachers' Day** on 05th September every year in memory of great teacher and former President of India Sarvepalli Radhakrishnan.

In memory of Sir M. Visvesvaraya's birth day on 15th September 2018, we celebrate the **Engineers' Day** every year.

Under the mission :Swachh Bharath" in the memory of Mahatma Gandhiji, we celebrate the birthday of Mahatma Gandhiji as **Gandhi Jayanthi** on 02nd October every year.

7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions

Response:

CEC maintains complete transperancy in financial, academic, administrative and allied functions.

The financial issues are well planned in the begining of the semester. All HODs assess the requirements and present department budget to the Principal. All the HODs finalise the Lab and Library requirements for the semester and send proposals. Purchase committee meeting is held to decide on final requiremnts and wait for approval. After Budget approval, every semester, HODs are given the details of budgetory allocations under different heads. The purchases are initiated following purchase norms. Quotations are called and comparitive statements are made. The vendors are called for commertial talk with AO and Principal to finalise the purchase. The vendor supplies the required equipment or service such as

Calibration or servising. Only on successful commissioning and demo of equipment the final payment is made. The Invoice is duly signed for acceptance by the HODs and Principal stating satisfactory working condition and mentioning the entry of the equipment details in the Stock register. As the Institution follows well established practice of Purchse procedure, the financial transparancy exist. Stock Verification is done on a regular basis to account for insolvency and working condition or missing items.

Academic transperancy exist at all levels as there is a well established procedures and practices. The work load is well decided in the begining of the semester as per time table. Duties and reponsibilities are known to every one. Service rules are well known.

Administrative trasparency exist at CEC as there is an established and well documented procedures for All to follow.

7.2 Best Practices

7.2.1 Describe at least two institutional best practices (as per NAAC Format)

Response:

PUPILPOD:

- 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.
- Availability of well-organized data about all students, faculty and Institution.

- 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.

Parent- Teacher Meeting:

Objectives:

- To bring home and the college in close contact.
- To promote the welfare of the student in home and community.
- The performance of a ward is to be discussed.
- The personal as well as academic problems of a student can be discussed jointly and efforts made to solve these problems.
- o Celebration of festivals can be organized. Invite parents and community members and accept their

viewpoints.

Activities can be taken up with the help of the community e.g. cleanliness of the city or village, eye camp, tours, funfair, cultural programme etc. under NSS programme of the college.

- 1.Placement Cell
- 2. Soft Skill Training Cell
- 3. Student Welfare Committee
- 4. Industry-Institution Interaction Committee

7.3 Institutional Distinctiveness

7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust

Response:

Describe the institutional performance in one area distinctive to its vision, priority and thrust within a maximum of 1000 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 existance 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

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.

We are herewith giving the programmes and training courses and certificate courses conducted by the Department of Civil Engineering.

The Department of Civil Engineering has conducted Certificate Courses on various Civil Engineering Softwares like:

- CYPE
- Revit Architecture

Students are introduced to industry – oriented software training courses to achieve the capability for entrepreneurial approach to face the global challenges.

FE Designs offer quality and up-to-date training and courses of CYPE programs in the national and international scene, so users can make the best use of their products.

19 students attended CYPE Software Training Program during April-May 2015.

Autodesk's Revit Architecture is a BIM (Building Information Modelling) complaint software tool for architects, structural engineers, engineers, and contractors. It allows users to design a building and its components in 3D, annotate the model with 2D drafting elements and access building information from the building models database. Revit tools offer planning and track various stages in the building's lifecycle right from concept to construction and even demolition.

30 students attended Revit Architecture Training Program duringApril-May 2016.

Autodesk® Revit® software is built for Building Information Modelling (BIM), helping professionals design, build, and maintain higher-quality, more energy-efficient buildings. Using the information-rich models created with Autodesk Revit software, architects, engineers, and construction firms can collaborate to make more-informed decisions earlier in the design process to deliver projects more efficiently. Any

design changes made in Revit models are automatically updated throughout the model, keeping designs and documentation coordinated and more reliable. Autodesk Revit includes features for architectural design, mechanical, electrical, and plumbing, structural engineering, and construction.

12 students attended Revit Architecture Training Program during April-May 2017

Bridge Design Workshop.

Bridge Design is a vital topic of study in Civil Engineering. In the Bridge Design Workshop, participants will design and fabricate their own bridge. The bridge model made by participants can take up to 1000 times the self-weight. The workshop includes instruction on the key structural components of Structural engineering and Bridge construction – beams, arches, trusses, suspensions, and test for maximum load.

17 students attended the Bridge Design Workshop April 2017.

Transportation Engineering Workshop:

Transportation is a non-separable part of any society. Due to the continuous improvement of infrastructure, and hence increasing transportation needs, civil engineers need to have practical understanding of transportation engineering.

This workshop aims to provide working knowledge on the computational methods for analysis of traffic signaling systems and traffic density at junctions.

18 students attended the Transportation Engineering Workshop April 2017.

5. CONCLUSION

Additional Information:

The institution is implementing VGST project sanctioned by state government on green energy. The project is on use of advanced materials and to analyze the emission of IC engines. Emission levels using new material will be analyzed using software which will go a long way in designing and developing high efficient engine to cope up with the depleting energy resources.

Concluding Remarks:

In conclusion, the Institution is progressively heading towards a sustainable echo system promoting Quality in Engineering Education. Ours is an Affiliated Institution to VTU, showing substantial development over the period of time in Infrastructure Facilities, Curriculum Delivery, Placement & Training, and Industry Interaction through Student Internships, Student Projects and Guest Lectures. Many of our Innovative projects are granted with financial assistance by KSCST, VTU and VGST. Faculty members are motivated to do research and are encouraged to publish in Technical Journals of repute and conferences.

Innovative skills among students are encouraged through Project Exhibitions, Conferences and Workshops. The Institution conducts regular Sports and Cultural events. Encouraging attempts are made to promote Key Indicators of Quality in each of the criteria. The Institution is built on its own land with a Sprawling Campus area of 11+ acres and has a long time existence catering to Engineering Education. Though the progress is steady, the Institution has every potential to grow further and hope to achieve accredited status as a testimony.

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