



CITY
ENGINEERING COLLEGE

BEST PRACTICES ---2022-23

CEC believes that a best practice needs to be innovative and successful. It should certainly not be a practice that is already popular and commonly used. The Best Practices at CEC have been developed personally and the strategy has been significantly modified. The practices provide evidence through data and analysis personal experiences and analogies. Best Practices are also an inherent part of a curriculum that exemplifies the connection and relevance in teaching learning, research, community engagement and entrepreneurial development. Best practices at CEC have led to balancing the curriculum, integrating the curriculum, differentiating the curriculum and providing holistic learning opportunities.

Outcome Based Education (OBE) with a focus ON

- Experiential learning
- Good governance
- Entrepreneurial culture
- Digital learning
- Conducting In-house FDP

- Innovative club
- Engineering museum – department of civil
- Seminar by students
- Monthly magazine “Tech Sangram” - department of computer science
- Display of earlier projects in the department for the students reference
- In library, records of projects, seminars, internships, journals for further students reference
- Webinars from the departments
- Proctor/counselling system
- Regular parents meeting
- Online classes by various apps
- Battle of science
- Regular industrial visits
- Feedback system
- 20.Green campus initiatives
- Regular monitoring of ragging in the campus
- Discipline maintenance through the help of committee members
- quality improvement meetings

Experiential learning is an engaged learning process whereby students “learn by doing” and by reflecting on the experience. Experiential learning activities can include, but are not limited to, hands-on laboratory experiments, internships, practicums, field exercises, study abroad, undergraduate research and studio performances.

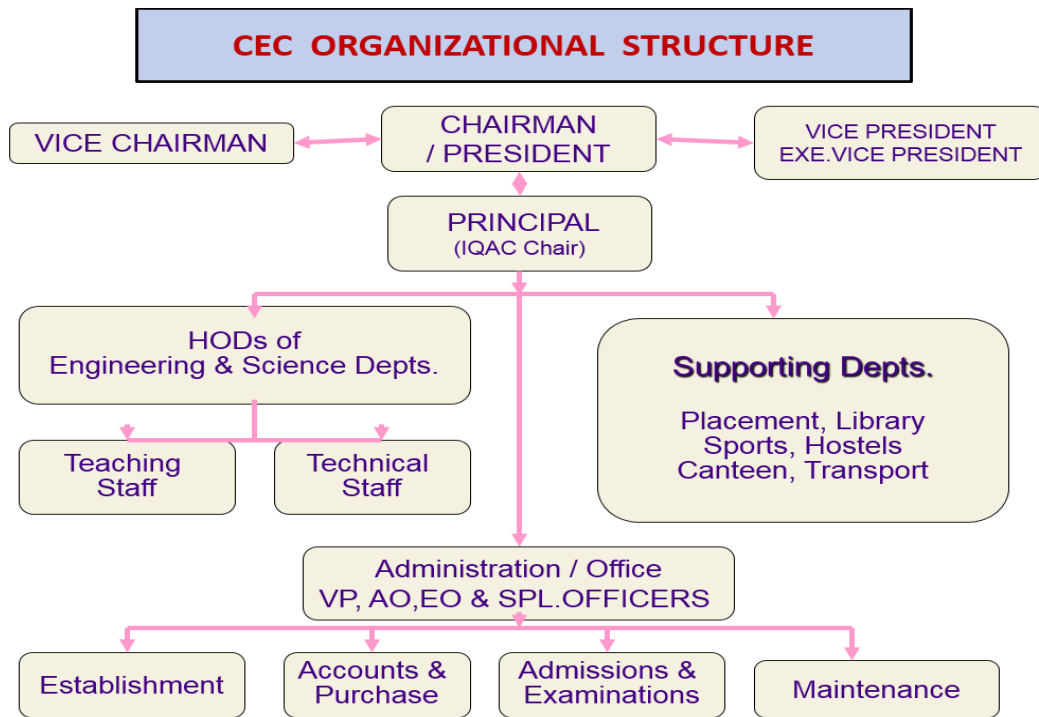


Technical Seminar

Date:21July2022



- **Good Governance**: Successful policy implementation for development begins with leadership that possesses a clear vision of the desired outcomes and the potential policy pathways for achievement. Good governance requires accountability, which necessitates effective monitoring and evaluation. The use of supreme audit institutions has been an important factor in tracking progress and ensuring efficient use of resources across all levels of government. More broadly, monitoring and evaluation systems have improved accountability while increasing coordination and coherence across governments.



- Entrepreneurial culture**: In our research on organizational cultures, we found four elements of entrepreneurial culture — openness, adaptability, results and **rewards**, and being a learning organization — that can be translated directly to non-profit environments. Entrepreneurship is increasingly recognized as an important driver of economic growth of a country. Even Govt. of India has recognized the importance of entrepreneurship and has introduced programs like "Make in India" & "Start-up India". An Entrepreneurship Development Cell (EDC) will function in the college with the intention of nurturing entrepreneurship skills of the students. The cell provides a platform for the students to pursue entrepreneurial activities and also provide assistance to potential entrepreneurs. With the prime goal of developing responsible innovators out of engineers, the EDC strives to assist every aspiring entrepreneur on every single step. With active involvement of students, the cell promotes and revitalizes the entrepreneurial culture in the college. Entrepreneurship cell dedicated for promoting the spirit of entrepreneurship among students and provide them an opportunity to get the experience of working on real time innovative projects and real world applications. The Cell promotes active involvement of students and revitalizes the entrepreneurial culture in the college.





- Waste water of RO Water Purifier is used for gardening.

We use waste water of RO water Purifier in our garden and we grow plants using this water



- Digital learning :

Digital learning is any type of learning that is accompanied by technology or by instructional practice which makes effective use of technology. Digital learning enhances the learning experience rather than replacing traditional methods altogether.

Objectives are:

- To make learning with no restrictions of time, place, path and pace.
- To make students as self-directed learners.
- To gain knowledge of the latest trends and technologies.
- To learn concepts from faculty of prestigious institutions to become globally competent.

The Context:

Digital Learning is learning facilitated by technology that gives students some control over time, place, path and/or pace of learning. Digital learning strategies include online learning, blended learning, flipped learning, e-learning, mobile learning etc. or a combination of them. Digital learning is one of the crosscutting missions of the college. Students from different levels & backgrounds need training to improve their skills in addition to traditional classroom teaching. The college has been working with the aim of making it a centre of excellence. Considering these requirements, the institute encourages students and staff to do online/blended courses offered by various prestigious institutions.

The Practice:

a. Online Learning

Online learning enables students to learn anywhere, anytime and any subject using ICT. Students are motivated to do NPTEL online courses with the help of video lessons and web content in addition to their regular classes to improve learning and in turn to enhance their skills. The faculty members are also encouraged to do online courses to improve teaching-learning process. NPTEL local chapter monitors the entire process.

b. Blended Learning

Blended learning combines face-to-face interactions with online activities. Participating teachers attend live lectures, tutorial and lab sessions at remote centre. The lecture transmission and live interaction takes place in distance mode using A-VIEW technology through Internet. The institute organized various workshops/fdps.

c. E-learning

E-Learning is a learning system based on formalized teaching with the help of electronic resources. E-learning is used for training staff and students. The institute organized training programs like C, C++, Python, Rivet structure etc. for students of all branches, in association with APSSDC as part of skill development. Various other training programs are conducted to enhance technical skills of students and staff.

Evidence of Success:

- Rate of placements increased
- Received prize money/vouchers in hackathons, topcoder challenges and in finding bugs in applications.

ERP: Enterprise Resource Planning (ERP) refers to a type of software that organizations use to manage day-to-day activities in institution.

Objective of ERP system

1. To maintain regular academic activity efficiently.
2. To ensure availability of data to the stake holders.
3. To monitor the student progress in every semester.
4. To reduce paper work and improve ease and efficiency in processing the data.
5. To provide transparency of the data and the activities

Supporting activities:

- Student's personal information and academic history is maintained through this academic management system.
- Faculty member, after each class, enters the attendance in the portal. If the student is absent for any class on that day, message will be sent to parent about his absence by evening.
- Class in-charge prepares monthly attendance using ERP and sends as message to parents.
- Sessional and assignment marks will be sent to parents. Final marks and attendance will be prepared based on the weightages given to two sessional and assignment tests.
- Reports of poor performers and irregular students are available to HoD/ class in-charges and they counsel those students and intimate the parents, if required.
- Teacher's diary showing what is taught in each class is available through ERP. Proper delivery of courses can be ensured and teachers can be counselled regarding the course delivery.

- Feedback on teachers regarding courses taught can be taken through the portal. Summary report can be generated for each teacher, section and semester.
- Faculty profile can be maintained and updated including their achievements, papers published and workshops attended.
- Dash board gives information to the Principal and the HoD regarding students and staff absent on that day.
- Options for provided for student, faculty, course and enrollment management.
- Attendance, marks reports, teacher's diary, detention and condonation lists are available for printing.
- Biometric daily and monthly reports of students and staff are available.

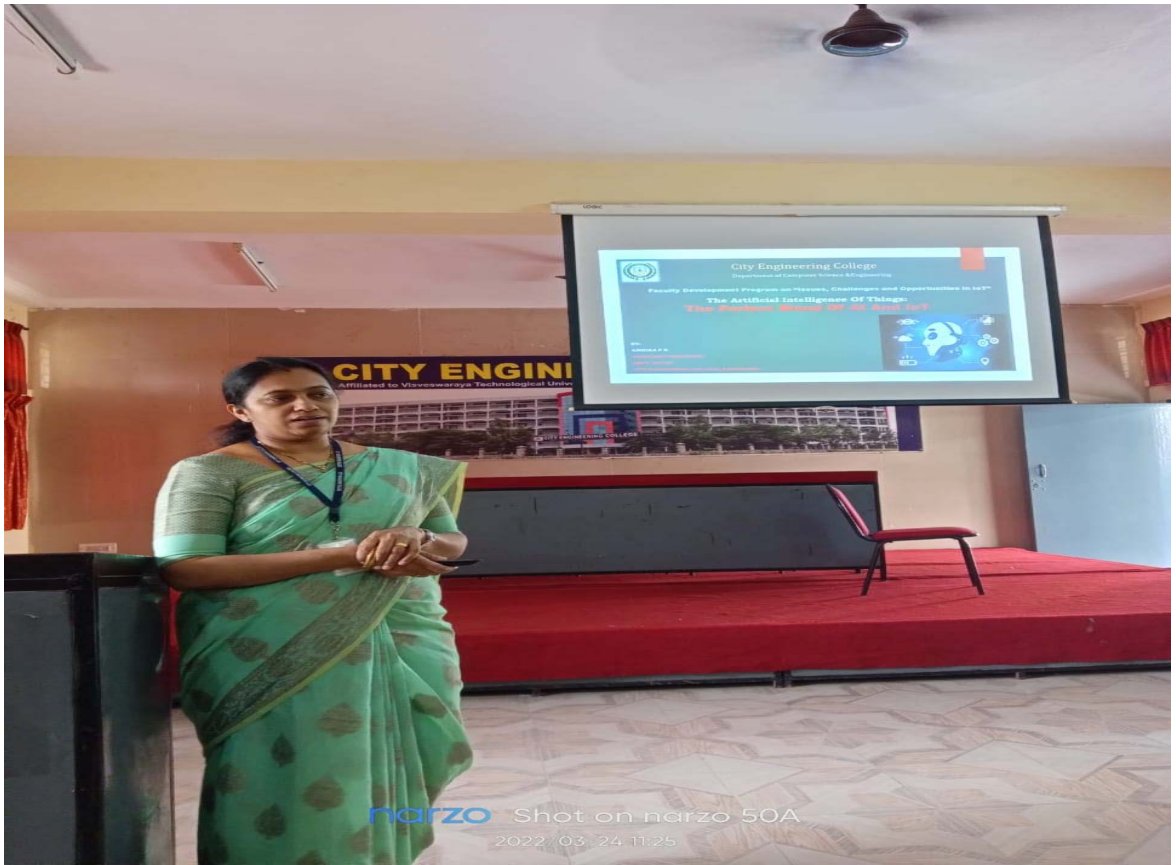
Evidence of Success:

- Transparency of data and activities provided.
 - Well-managed, non-redundant and instant information for decision making.
 - Efficient monitoring of regular academic activity of the institute.
 - Right information at right time is available to right persons.
 - Satisfaction of the stake holders regarding availability and efficiency.
- **Conducting In-house FDP:** We organize In-house Faculty Development Program Every year. During this session our faculty members those who are professors, give PPT presentations on different new topics so that every faculty can understand the new technical upcoming topics and upgrade their knowledge.











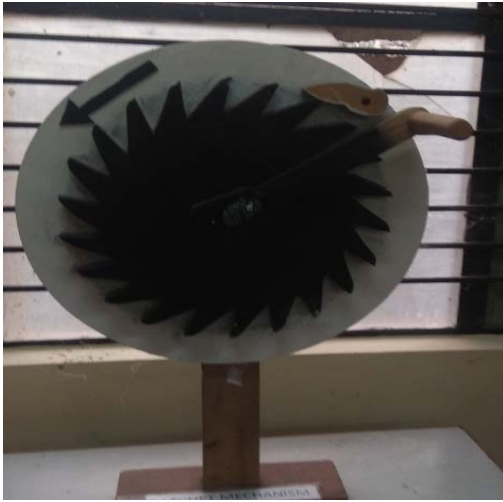
- **INNOVATION CLUB**

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING holds to engage students in innovative and creative activities apart from providing opportunities for Hands-on activities, The College has set up Basic Technology Lab integrated with all the departments as part of Innovation and Research to promote students to get a platform to present their ideas and innovative thoughts. The Projects/Models are displayed in the lab to enrich knowledge to fresher's joining to the programme of engineering in any discipline



DEPARTMENT OF MECHANICAL ENGINEERING holds an innovative club wherein students are motivated to do projects which would enhance the basic skills of junior students, the entry level students would be allowed to see the displayed projects and understand the basics of certain mechanisms practically.

Some of the displayed projects:

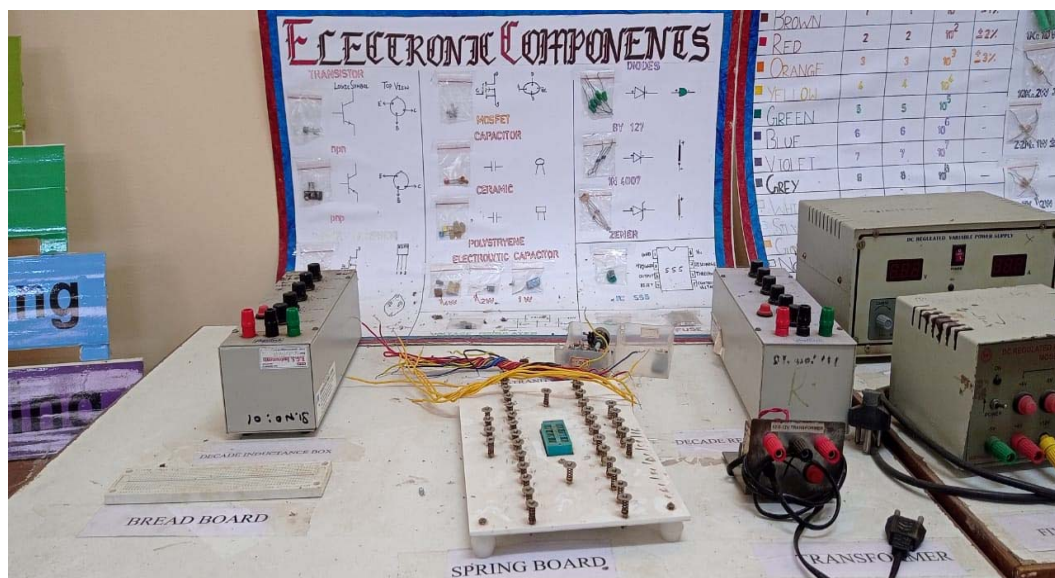


VARIOUS MECHANISMS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION promotes students to go through the latest and cutting-edge technology and encourage them to come up with a project that can help the society. The best projects are reviewed by industry experts and based on their advice projects would be stored in a separate area in the college campus and will be available for the junior students to go through them. The students can think of improving, adding new features or cutting the cost of the projects available.

The projects along with the components used are displayed with proper captions for the students to understand. The students are encouraged to take up these projects and come up with ideas to improve them.

Learning the basic concepts of electronics is very essential as well as beneficial for the growth of students. The students will attend workshops like PCB design, Microcontrollers, programming using Raspberry Pi etc conducted by the senior faculty. Management visits the Projects storage area and motivates the faculty and students.

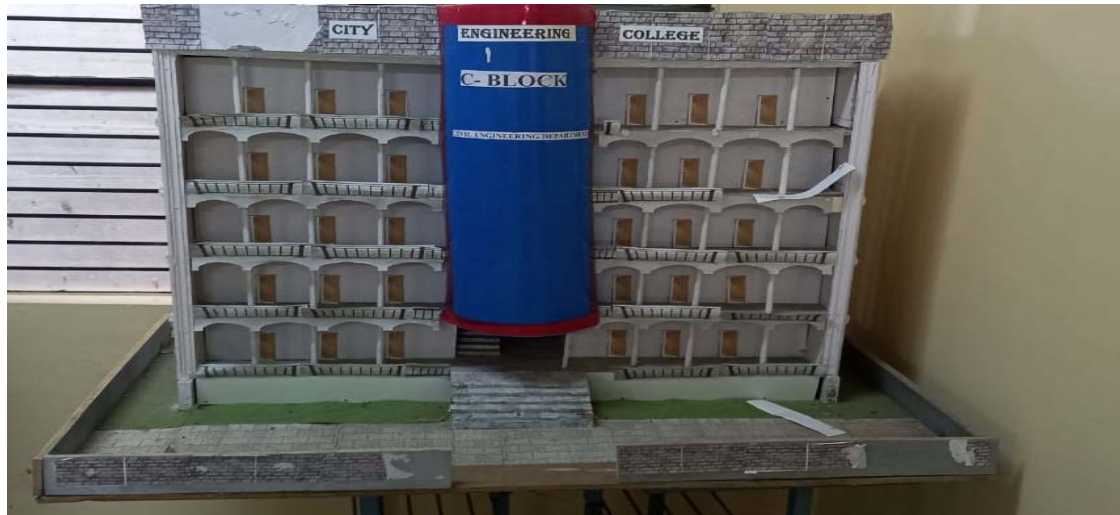


DEPARTMENT OF CIVIL ENGINEERING: The College has many resources available on campus that act as catalyst to improve Innovation & Entrepreneurship among students of different courses. To nurture the entrepreneurial, creative and innovative skills of the students- various workshops, competitions, technical talks and incubation centers have been set up where students get inspired to become a social-entrepreneur or techno entrepreneur. The students of civil engineering have done few models during inter-college model exhibition. Best 3 models are kept as part of innovation club.



HYDRAULIC BRIDGE

HYDROELECTRIC DAM



CEC C-BLOCK MODEL

- **ENGINEERING MUSEUM – DEPARTMENT OF CIVIL**

As per VTU, all Civil Engineering Departments should have a “CIVIL ENGINEERING MUSEUM” with collections related to civil engineering like models, charts, material samples, fixtures and fittings etc. which assist effective teaching learning process. In order to enhance effective teaching learning process, Department of Civil Engineering, City Engineering College has setup Museum which consists of models, charts, material samples, fixtures and fittings etc.

- **SEMINAR BY STUDENTS**

All the departments have been intensively practising the methods of giving seminars by students related to academics and technical sources. A seminar is a group meeting led by an expert that focuses on a specific topic or discipline, such as business, job searches or a university field such as literature. Seminars typically take place over the course of a few days and involve cooperative discussion, multiple speakers and opportunities to share perspectives and issues related to the topic.

Attending a seminar has numerous benefits, including improving communication skills, gaining expert knowledge, networking with others and renewing motivation and confidence.

- **MONTHLY MAGAZINE "TECH SANGRAM" - DEPARTMENT OF COMPUTER SCIENCE**

The department of Computer science and engineering has started Monthly Technical Magazine "TECH SAMACHAR" under the CORE club of the department to conduct technical activities. The editorial committee members Prof. Ambika P R & Prof. Deepika R. Tech Samachar is particularly important as it encourages the students to share the knowledge they have acquired. Writing articles for the Newsletter also improves the communication skills of the budding engineers of the Computer Science and Engineering Department. It is common knowledge that representation of an idea is as important as, if not more important, than the idea itself. "Tech Samachar" aims to inspire and nurture upcoming Engineers to bring a revolution in this ever-evolving world of Technology. The Newsletter captures the current Technological advancements. Articles are gathered from Students, faculties, research scholars and Alumni's of the college. Following is the drive link to access the source of Monthly magazine.

CSE newsletter Volume 1 Issue 1

link: <https://drive.google.com/file/d/1blqbrEltYLXtOiCd6MRtwwhLBr uKwOiU/view?usp=sharing>

CSE newsletter Volume 1 Issue 2

link: https://drive.google.com/file/d/1COuX_s-In8bHLoSUcMGt3xFiwgk4wiil/view?usp=sharing%20Attachments%20a rea

CSE newsletter Volume 1 Issue 3

link: <https://cityengineeringcollege.ac.in/erp/uploads/Techsamachar%20vol-1,issue3.pdf>

CSE newsletter Volume 1 Issue 4

link: <https://cityengineeringcollege.ac.in/erp/uploads/Techsamacharv01issue4.pdf>

CEC news letter Volume 2 Issue 1

<https://drive.google.com/file/d/1Z8uEhsFSfHjppz6sku07PFXaAa5AqzRR/view?usp=sharing>

- **BEST PRACTICE RESTORING OF OLD PROJECTS FOR FUTURE DEVELOPMENT**

Mechanical Department promotes embedment of latest technology possibility in old student's projects towards proper project adaptation, further improvement and possibility of cost cutting. The best projects are investigated by industry experts and based on their advice projects would be restored. An area is separately provided for the storage of old projects so that present day students can utilize and further develop. Management visits the Projects storage area and motivates the faculty and students.

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workshops like PCB design, Microcontrollers, programming using Raspberry Pi etc conducted by the senior faculty. Management visits the Projects storage area and motivates the faculty and students.

- **IN LIBRARY, RECORDS OF PROJECTS, SEMINARS, INTERNSHIPS FOR FURTHER STUDENTS REFERENCE**

The Centralised library system is a digitalised library platform provided to access learning resources through text books and online materials. Libraries are fundamentals to developing students as learners, teaching students the skills they need to follow curiosity, find information, and apply knowledge to their academic and personal lives. The total volume of books available are 27,089 and titles 4511 and SC & ST Book Bank having volume of 1057 and titles 385. The institute has membership with standard journals like Springer, K-Nimbus, Elsevier, Science Direct, Taylor & Francis, ASCE, Proquest, Remote Access etc and has a repository of accessing project reports, Internship reports, technical magazine of various departments, journals, e-books and book banks for poor and meritorious students etc.

- **WEBINARS/seminars FROM THE DEPARTMENTS**

The online event activity of imparting technical knowledge is done through webinars and has been practising in all departments.



CITY
ENGINEERING COLLEGE

WELCOME TO GUEST LECTURE

ORGANIZED BY

DEPARTMENT OF CSE/ISE/AI&ML

CSE HOD
Dr.Sowmya Naik

AI&ML HOD
Dr. S Vagdevi

ISE HOD
Prof. Nandish A. C.

CONVENOR
Dr. Y. S. Kumaraswamy

VENUE:

CSE Seminar Hall,

DATE & TIME

29/11/22 10AM -11AM
30/11/22 10AM-11AM

SPEAKERS

Ms. NEHA SHARMA
Dr. C N RAMCHANDRA

TECHNICAL COORDINATORS:

Dr. Nandakumar
Dr. Jaganath
Mr. Girish G.A
Mr. Vinodkumar
Mr. Ramesh B
Mr. Gangappa D

Dr. Mary Cherian
Mrs. Laxmi M C
Mr. Archana Bhat
Mrs. Ambika P R
Mrs.Sangeetha U

Mrs.Tejeswini B N
Mrs.Sangeetha Rao S
Mrs. Vindhya
Mr. Shishikala H C
Mrs. Shruti V

ADMINISTRATIVE OFFICER

Mr. Satish Hande
City Engineering College

Department of E&CE Organized a Seminar on “Electronics: Its Importance and Application in Industry” by Mr Venkatesh Ramashastry, Manager – Signal Integrity, Tessolve Semiconductor, Bengaluru

Technical Seminar
Date:21July2022



- **PROCTOR/COUNSELLING SYSTEM**

The Proctor system has 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

Objectives of the proctor system:

- **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.**
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- - 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.

REGULAR PARENT TEACHER MEETING

- 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. Every semester one or two Parents meeting are scheduled.
- The personal as well as academic problems of students can be discussed jointly and efforts made to solve these problems
- Celebration of festivals can be organized inviting parents and community members and accept their suggestions

- **ONLINE CLASSES BY VARIOUS APPS**

Zoom app, Google meet, WebEx, Web Team etc are used to meet students and online classes are taken. Different apps like Google classroom, what's app, YouTube videos were used to upload the teaching materials. VTU e-learning centre sent some links for the video of different subjects and that link is sent to related students and encouraged to learn the subjects.

- **REGULAR PROJECT EXHIBITIONS(Battle of Science)**

Every year we conduct regularly project exhibitions for exploring the student's practical knowledge. Students group are created and they have to use their techniques and exhibit the working projects and organized competitions and cash prizes are given to students as a part of encouragement. Student who did their best are encouraged to send to inter-college project exhibition competition. (Enclosed details in the file named industry institution interaction cell).

- REGULAR INDUSTRIAL VISITS(Details in file named industry institute interaction cell)

Every semester we organize industrial visits to student to explore the industrial interactions which helps in projects and internship. It helps in their future career too. Date wise details and reports are documented.

- FEED BACK SYSTEM (Separate file is maintained)

Feedback processes of the institution may be classified as follows:

- It is Evaluated through Digital Platform, by sharing Google form to all students
- Feedback collected from students
- Analysis of total students feedback collected and calculating the percentage & Action taken

- GREEN CAMPUS INITIATIVES : To keep the campus green various activities are undertaken. NSS and YRC team organize plantation program every year. Students and faculty members

involve actively and the Principal motivates the gathering with few words about the importance of plantation. Encourage students and faculty members to do these type of work in the campus regularly. NSS volunteers try to clean the campus as a Swatch CEC program once in a year. Every year we celebrate environmental day on June 5th and we arrange guest lectures for students about the environmental awareness. Green Auditing & Quality auditing is done during the year 2022 by M/s Eco Energime Engineers LLP, Bengaluru. The Audit includes water Audit, Energy audit, waste management audit and aspects of environment audit. Best practices implemented for management includes waste collection bins, decomposer pit, sign boards to use dust bin, usage of blowers and section cleaner, regular cleaning on campus and awareness program etc.





- **REGULAR MONITORING OF RAGGING IN THE CAMPUS**

The college started the Anti- ragging committee during the year 2013-14. Chairman of the committee and committee members actively observe the activities of the students in the campus. Actions are planned by the committee to keep the campus ragging free.

The fresher's/junior students are also here by instructed that they should not respond to the calls from seniors, should not participate in any kind of party anywhere inside/outside the campus, even if ordered by the seniors and that, they have nothing to fear as the institution cares for them and shall not tolerate any atrocities against them.

- CEC campus is ragging free, still all these measures have been taken to ensure that the fresher's are able to pursue their studies without getting teased, insulted or in any way troubled by the seniors in the name of an obsolete, barbari critual. All of this was possible only because of the whole-hearted support from students and teachers.

- Principal frequently interacted with flying squad committee members to find out the any incident happened in the lunch break time in the canteen, class room, buses etc.
- Single ragging case found in 5 years of duration. During college day function on 23/05/18 one of our students Ms. Sahana of 8th semester, Civil department complained to the Principal, that four students of her own department, ask her to dance with them and pulled her hand. She refused to dance with them and complained against them to the principal in writing. Inquiry made by the Chairman of the committee along with committee members. Parents as well as students are warned by the Chairman and apology letter was taken.
- Display boards related to Anti-ragging policies are displayed in the campus
- Per year two to three meetings are conducted by the Chairman of the committee.
- DISCIPLINE MAINTAINANCE THROUGH THE HELP OF COMMITTEE MEMBERS (Separate minutes of meeting book related to discipline committee is maintained):

City Engineering College has the strong discipline committee composed of 9 members from different departments. Vision of the discipline committee is to create a safe and motivating environment in our institution and bring professionalism among students by the inculcation of best practices. Mission of the committee is to have an optimistic approach in imparting discipline among students and frame rules and regulations to maintain

discipline in the college premises and also to encourage good and healthy practices.

Committee members are responsible for the maintenance of discipline within the college campus. If any indiscipline is found by any of the students, warn them on the first instance & take the disciplinary action based on the rules and regulations of the committee, if the pattern of misconduct continues.

Some administration actions on discipline of city engineering college are undertaken. Starting with formation of flying squads, strict warning about late coming, and immediate messages for the parents if the student is absent or misbehaves, using cell phones in the campus etc. Two meetings will be conducted every year to discuss.

- **QUALITY IMPROVEMENT MEETINGS**

(Discussion of quality improvement strategies in separate meeting. IQAC meeting file is maintained) IQAC is established in Dec 2016 to improve the quality of the City Engineering College. IQAC members are all HOD's and regularly they meet and discuss about the strategies to improve the quality of teaching-learning methods, result improvement, tutorial classes, examination and evaluation process etc. Minutes of Committee meetings are recorded and proper measures and actions taken are noted.