



# CESA INSIDER

JAN 2021 | ISSUE 01

## "Arise, Awake and Stop Not Till The Goal is Reached."

An interview with Dr. K Rajeswari

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## Software is for Humans

Explore the roots of software and its impact on our lives

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## Lets talk animation!

Getting started with Blender and how make your first animation

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## Welcome to our First Issue!

Computer Engineering Student Association (CESA), with the guidance of our Principal, HoD, and faculty has been able to bring another feat to our accomplishments. This magazine will be available to all students of the computer department for them to be aware and ready for all the upcoming events, get a brief account of all past events, and have a platform to display their creativity. YES! you could be featured on the cover page of the next issue of CESA INSIDER. This magazine will also provide students with informative articles on upcoming topics curated for the students' benefit.



# Our Inspiration



Late. Shri. Shankarrao B. Patil  
Founder President,  
Pimpri Chinchwad Education Trust



Late. Smt. Lilatai Shankarrao Patil  
Ex President,  
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## Advisors' Message

Dear Reader, greetings to you!

The Vision of the Department is to be a Premier Hub in Computer Engineering. The faculties here exhibit good expertise in their respective domains to train the students according to the current market scenarios. Online teaching with upGrad and BodhiTree at PCCOE has become a new norm of Teaching Learning and I am proud to have a dedicated Faculty team who greatly connects with Students in online mode too!!

The goal is always to build a strong academic foundation, discipline, ethics, values, skill-building, personality development, understanding talent, stimulating creativity, strengthening alumni relations, and much more...

The laurels the students have fetched by being Toppers in University ranking, publication in Research conferences and journals, Entrepreneurship initiatives, National and

International recognition, getting admissions in renowned universities for higher studies ....all are appreciable!!

The Department of Computer Engineering believes in the quote "The Heart of Education is the Education of the Heart" and hence this magazine will be an added platform for students to mold themselves personally and professionally to make them think HOW TO THINK and not on WHAT TO THINK.

I have immense pleasure in conveying my best wishes to the technical magazine "CESA INSIDER" which brings the students and teachers of various skillets on a generic platform to share and display their ideas and creative talents.

I wish all the students who have been involved with all dedication in bringing out the magazine showcasing all imagination and aspirations. I am sure, the e-magazine would be helpful for the student community and I convey my congratulations and best wishes for future endeavors!!!



**Dr. K. Rajeswari**  
H.O.D.  
Computer Engineering  
Department  
Advisor

The Student Development Welfare (SDW) cell aims to work for overall student development. This is a good example of faculty and student dedication to facilitating the overall development and growth of students. The main objective of the SDW cell is to work for Students Development and Welfare inline with our Department Vision & Mission. The students' welfare is achieved through Student Development activities conducted under different cells of SDW. The cell motivates the students to organize, conduct, and participate in different activities that will leave an impact on society at large. With this motivation students always try to upgrade their skills under the guidance of faculty members, also they strive for getting recognition at the National and International.

levels. The active professional bodies that contribute to overall student development are ACM, ACM-W, CSI, and IET. I am overwhelmed to see various technical as well as non-technical programs organized under SDW during this current pandemic also.

I am very happy about the initiative taken by Team CESA to bring out the first edition of CESA Insider- A digital magazine showcasing all CESA activities & tech updates. I hope every student should connect through this magazine. I appeal to all the students to actively participate in this initiative. Our dream is that each and every student of the biggest department of PCCOE should actively participate in all the activities arranged by the cell. I wish Team CESA a bright, wonderful and a promising future.



**Prof. Rahul Patil**  
SDW Coordinator  
Advisor



**Prof. Rahul Pitale**  
CESA Co-ordinator &  
ACM Faculty Sponsor  
Advisor

Computer Engineering Student Association's shibboleth is "Association of students for students and by students" which amplifies students as major stakeholders wherein the student body contributes to the overall development of students personally and professionally. Team CESA organizes various events that tend to mould the student growth which makes them sound academically and professionally. I feel privileged to say that since its inception all the teams were

enthusiastic including the current one which resulted in winning laurels at the National and International level. The CESA INSIDER will provide a glimpse of every activity that includes technical and non-technical which will also emphasize on remarkable achievements in a particular period, tech news, and many more. I wish good luck to team CESA and may they achieve heights in future endeavors!!!

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Durga Late

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## Association of Computing Machinery Women



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# In Memory Of



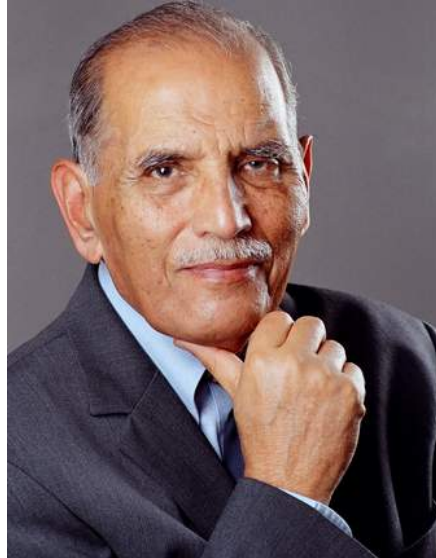
Dr. G. V. Parishwad  
Ex-Director, Pimpri Chinchwad College of Engineering, Pune

Dr. G.V. Parishwad guided us for a short amount of time but the impact he had on us was enormous. Our smooth shift to online education was guided and supported by him immensely.

He obtained his B.E Mechanical Engineering degree from Walchand College of Engineering(WCE), Sangli in 1981, M E. degree in 1983 from Indian Institute of Science, Bangalore, and PhD. in Thermal Engineering in 1998 from Motilal Nehru Regional Engineering College, Allahabad. After 4 years of service in the industry, he joined the College of Engineering, Pune in 1989 as a lecturer and rose to the position of a professor in 1992. In 1998, he was given the role of Head of the Mechanical Department, which he continued till he became the Director of WCE. Post this, he joined PCCoE as its respected director.

We can say, on behalf of the entire student body that he will be dearly missed. His name will forever remain in the history of our college as someone who made an impact during these difficult times.

# FC Kohli - A Tribute



19 March 1924 to 26 November 2020  
Peshawar, Pakistan

FC Kohli was the founding chief executive of India's largest IT company, Tata Consultancy Services (TCS). He was awarded the third-highest civilian award, the Padma Bhushan. Tata Sons' Chairman, N. Chandrasekaran gave Faqir Chand Kohli the title of a 'True Legend' as he laid the foundation of what has been a 'Spectacular IT revolution' and set the stage for a dynamic modern economy. "Kohli was the true pioneer of Indian IT. We have all followed in his footsteps. His contribution to the IT industry and thus to India is immeasurable", Wipro Chairman Azim Premji said in a statement. Former Union Minister Jairam Ramesh called him the 'Bhishmapitamaha of the Indian Software Industry'. He was an asset to the industry and he won't be forgotten. Chandrasekaran said Kohli led innovations in areas far-ranging, from adult literacy, water-purification, software engineering/automation, complex-systems, and cybernetics. Kohli's achievements in Power and IT Industry and active interest in solving varied societal problems make him an Engineers' Engineer much like Bharat Ratna M Visvesvaraya. A workaholic, who scoffed at the concept of retirement and fading into the sunset and was deeply engaged in using technology and systems approach to solving societal problems at 90! Thanks to IT leaders like Kohli, India earned its place as a global IT leader. He will continue to inspire generations of professionals to leverage technology for the betterment of India and the world.

# Our Journey...

Pimpri Chinchwad College of Engineering's ACM Student Chapter was created with one motive in mind to help students improve their ability in technical, non-technical, leadership qualities. The Computer Engineering Student Association (CESA) team works for this student chapter. Team CESA was created in 2012 with the strong support of our respected HOD, Dr. K. Rajeswari. Slowly and steadily the family kept growing as our goals synchronized and the team became a family. The PCCoE ACM Student Chapter has accomplished various achievements under ACM such as being Awarded "ACM Best Student Chapter Runner UP" for the years 2018 & 2020. Awarded with Outstanding community service award for the year 2020 at International Level. Team CESA also works on various other chapters which is: PCCOE Association for Computing Machinery Student Chapter for Women (PCCOE ACM-W Student Chapter), CSI and IET. The CESA team also has various clubs under it for the technical development of our students like Google Developer Students Club (DSC), Google Cloud-ready facilitator program, Google AI's Explore ML Academy, GitHub Campus Program, CESA Coding Club, PCCoE Codechef Student Chapter. They also get various other opportunities to attend well-reputed programs like Google Facilitator. Till now 4 students got the opportunity to train under google experts and further their responsibility was to train other interested students on our campus.

**CESA** | Computer Engineering  
Students Association



Students also get international exposure through ACM XRDS magazine (An international magazine published by ACM quarterly) which currently has 5 students working as an editor at an international level. Also in the pandemic situation, students were provided access to a wide range of Coursera certifications from various international universities, so that they can learn new skills while they are at home. CESA provides platforms for students who want to pursue higher studies by having different Specialized Interest Groups (SIGs) for competitive exams like GATE, GRE, MPSC, UPSC, and CAT so that students can grow together with people who have similar interests & all this comes under one banner that is higher studies cell. Professional development cell provides a platform for the students to get on-demand training & the latest technologies. Students are also given the chance to pursue their hobbies and a chance to showcase their talents.

CPDC cell focuses on the leadership, and personality skills of students. This aids people to be better communicators because we humans are social creatures we need to have good communication skills to be successful. The CESA is not just a team it's a family and they have one goal in their mind that is to grow together.



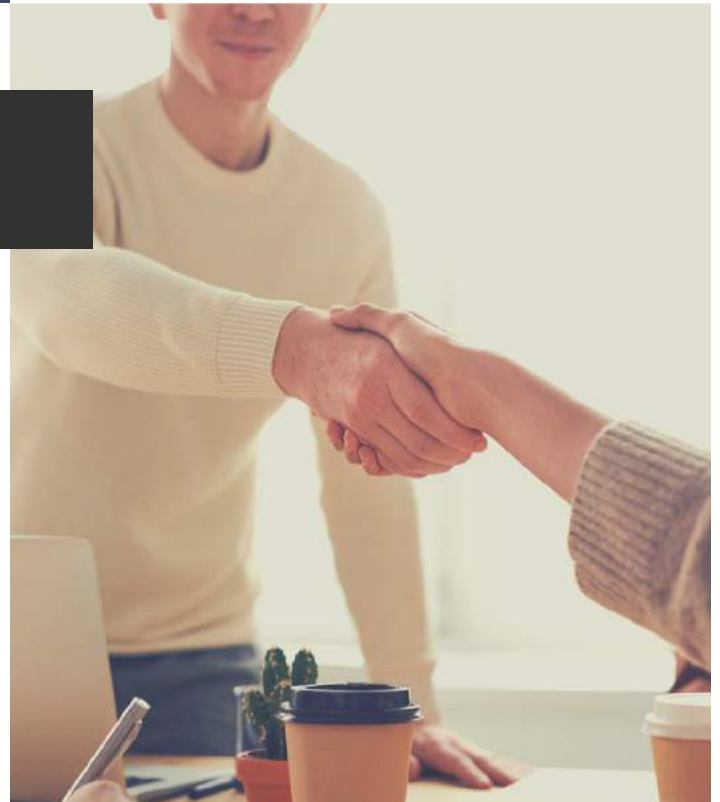


## ACHIEVEMENTS

A section for the students who have devoted their time, and energy to improve themselves, so that they can accomplish their goals and make their college, friends, and parents proud of them.

## INTERVIEW

It is rightly said that 'Experience is the best teacher'. People with experience can guide you to the path of success. For that purpose, we interview our faculty so that they can guide and give us a headstart towards achieving our goals. A section in this issue is dedicated to interviews.



## ARTICLES

In this issue, you will get to know about the different events that have happened during the year 2020-21. The articles will contain information about all the events conducted by team CESA. There are technical articles for you can stay updated about current technological trends in this section too.



# Achievers!



**SUYASH SONAWANE**  
Google DSC PCCoE Lead

All high-level concepts and ideas can be boiled down to simple step by step instructions which can be programmed and easily implemented with a computer program.

He is a Software Engineer at Gupshup, helping companies reach their customers through its messaging platform. He has 4+ years of experience working with and designing microservices-based systems.



**DARSHIT PATEL**  
Featured in ACM Select



**SWAPNAJIT PATIL**  
Facilitator for Google Cloud

I am looking forward to taking deep dive into the field like Cloud Computing, Blockchain, Actions on Google. Cloud and Blockchain have always fascinated me as emerging technologies.

Technology is useless if it is not accessible to the people who need it the most; I want to make efforts to bridge this gap.



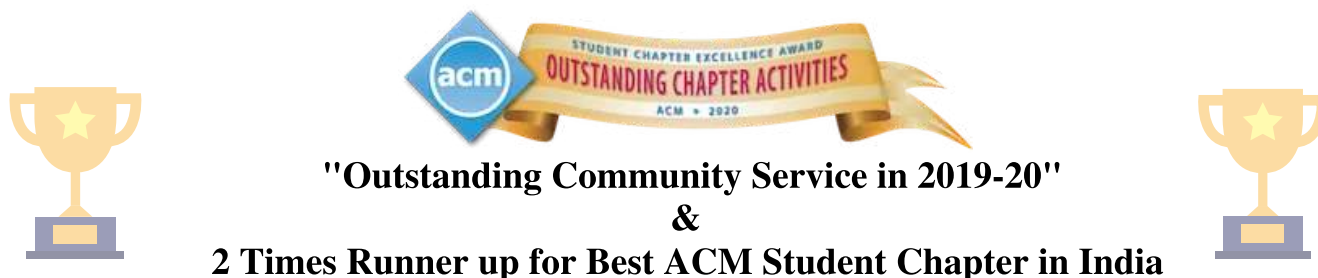
**ANKUSH PATHAK**  
Featured in ACM Select



**ANIKET DHOLE**  
Deep Learning Superhero Contest

I am interested in Robotics and Hardware, trying to make technology accessible to everyone. I am from a farming background and I applied an idea for a project in a competition and won it.

# Overall Achievements



**"Outstanding Community Service in 2019-20"**

**&**

**2 Times Runner up for Best ACM Student Chapter in India**

## **Google Campus Facilitators:**

- a) Swapnajit Patil - Google Cloud Facilitator
- b) Jovian Anthony and Shruthi Bhat - Facilitators for Explore Machine Learning Program
- c) Abdul Wasay - Campus Facilitator for Google's applied science with Android



## **Codechef Challenge 2017-18:**

Pankaj Jahagirdar  
Global Rank - 1665  
Country Rank - 854

## **ACM ICPC:**

Total 14 teams qualified for the Regional Round of ACM ICPC from 2014-15 to 2019-20.

## **TCS Codevita Finale:**

Pankaj Jahagirdar qualified for the TCS Codevita Finale 2018.



## **Google Developer Student Club:**

Prof. Rahul Pitale (Faculty Advisor)

Suyash Sonawane (DSC Lead)



Prof. Rahul Pitale  
Faculty Advisor



Suyash Sonawane  
DSC Lead

## **ACM India Summer Schools @ PCCOE 2018:**

Successfully hosted ACM India Summer schools on principles of programming languages theory and practices in June 2018.



# Overall Achievements



## TCS-ACM Winter Schools 2017:

3 students and 1 faculty attended ACM Winter Schools 2017 @ TRDDC Pune

## ACM India Summer School:

6 Students Attended ACM Summer Schools - 2017

4 Students Selected for ACM Summer Schools - 2018

27 Students Selected for ACM Summer Schools - 2019



Pimpri Chinchwad  
College of Engineering

## ACM Summer School selected candidates



### Detection and Analysis of Malware COEP Pune



### Algorithmic Game Theory IIT Gandhinagar



### Cybersecurity and Data Analytics IIIT Delhi



### Compiler Design and Construction VIT Pune



### Algorithmic and Theoretical Aspects of Machine learning IIIT Bangalore



### Geometric Algorithms and their Applications NISER Bhubaneswar



## Google Bootcamp Selection:

Amongst the top 20 groups from India



- **ACM-Eminent Speaker Program:**

Conducted more than 12 ACM ESP Programs for students and faculties.

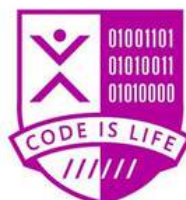
# Overall Achievements



## Microsoft Student Partner Program:

The following students were selected:

Abhijeet Ghadge      Rohan Yelpale  
Saransh Dave        Rucha Udgirkar  
Saurabh Purkar



**ACM Annual COMPUTE Conference** at Goa University, Goa, India from October 10th to 12th, 2019. The program for faculties emphasized how the teaching methods can be improved. Many faculties from different colleges proposed their innovative ideas on effective teaching-learning process.

In 2018, PCCoE ACM Student Chapter was invited to ACM COMPUTE where Dr. K. Rajeswari & Prof. Rahul Patil presented our chapter in the presence of the entire ACM India team.

**Coursera Initiative: More than 29,000 enrollments**

# coursera

## ACM - Pune Coding League:

Successfully organized 3 editions of ACM Pune Coding League aka PCL @PCCoE.

## ACM XRDS Magazine:

Darshit Patel (ACM Special Project) - 2016  
Ankush Pathak (Department Editor) - 2017  
Jovian Anthony (Department Editor) - 2019  
Manandeep Singh (Department Editor) - 2020  
Bhargavi Jahagirdar (Department Editor) - 2020

**Crossroads** The ACM Magazine for Students

# XRDS

# Overall Achievements



## Smart India Hackathon:

4 Teams Qualified for Finale - 2017

2 Teams Qualified for Finale - 2018

First Prize SIH - 2019



## ACM - W's Lady Ada coding contest Winner:

Prachi Tekawade - First Prize - 2016

Shreya Joshi - First Prize - 2017

Shivani Junawane - Second Prize

## ACM/SPEC - Travel Grant 2019:

International Conference on Performance Engineering, IIT Bombay

Dr. K. Rajeshwari

Dr. A.D.Thakare

Dr. P.R.Futane

Mr. Kapil Tajane

Mr. Rahul Pitale



## ACM FCA (ACM Future of Computing Academy)

Our alumni Darshit Patel is selected for ACM FCA which is a platform that enables the next generation of researchers, practitioners, educators, and entrepreneurs to develop a strong and influential voice towards addressing challenging issues facing the computing discipline, and the world at large.

## Grand Prize Winner Details: Aniket Dhole

Competition: Deep Learning Superhero Contest

Organizer: Intel, Hackster.io

Project details: Mango Plant Disease Detection

It classifies the images of mango leaves and tells if they are diseased or not using Machine Learning and Intel's Openvino





# Overall Achievements



## CSI - CodeX2020:

Pratik Dhende - First Runner up

Chinmay Joshi - Top 5 finalist

In CSI - CodeX participants have to write 4 programs in supported languages and the programs are based on algorithms and data structures.



## ACM Winter Schools 2020 participants:

The ACM Winter Schools 2020-21 is a program for self-motivated students to learn in-depth knowledge and exposure to research in advanced technology areas.

These schools have intense lectures and hands-on sessions on advanced topics. The aim is to give exposure to recent advances in these areas to bright and motivated undergraduate/graduate students.

## ACM Winter Schools 2020:

The ACM Winter Schools 2020-21 conducted four events on cybersecurity, Algorithms for big data and ML, natural language processing, fairness, accountability, and transparency in AI.

Dates	Title	Host Institute	Industry Sponsor
21 to 31 December	Cybersecurity	VIT Vellore	Cisco India
28 December to 9 January	Algorithms for Big Data and ML	Institute of Mathematical Sciences (IMSc) Chennai	Microsoft Research India
4 to 15 January	Natural Language Processing (for Women only)	DA-IICT Gandhinagar	[TBD]
11 to 22 January	Fairness, Accountability and Transparency in AI	IIT Kharagpur	IBM Research India

# Dr. K. Rajeswari

## - HOD, Computer Department

### What motivated you to become a teacher?

I was privileged enough to have some really good teachers when I was in UG. But sometimes I used to feel that a particular session could have been taught in a much more effective way. Also, I wanted to fill some of the gaps in the teacher-student connectivity. Money was not my aim. I became a teacher for two things: to develop the technical side of the students and to build a better bond with them.

### What is your teaching philosophy? How are you holding on to it during these difficult times?

I miss you, students. I believe that the teachers should be a step ahead of the students. Nowadays, the students have a vast knowledge of all technical and non-technical events. So, if I enter the class to teach Data Analytics, I should know more than the students. That will make the class interesting. After the pandemic, the biggest challenge was online teaching. I chose UpGrad and BodhiTree after personally experimenting on these two platforms. The process was fun and I hope you students enjoy it too.

### What do you think is the most important duty of a teacher?

I feel a teacher's foremost duty is to be knowledgeable. The students should be able to look up to a teacher. The teacher should also be able to develop connectivity with the students and should be able to bridge the gap between him/her and the students. I think that developing this level of interaction is one of the most important duties of a teacher.



### Rapid Fire Round

What did you want to become when you were 12?

I was a passionate child and was looking forward to a happier future.

What was your favorite subject in school?

Mathematics

One book you'd recommend the students to read.

Bhagwad Gita

Favorite subject to teach.

Data Analytics, Problem Solving

Of all the things that we are learning currently what do you believe will be the most useful as an adult?

Honesty

## TEACHER'S INTERVIEW

**Ma'am, we've seen you work hard for the betterment of the Computer Department and the students. You are always passionate about the work and your enthusiasm always motivates us to be more like you. Could you tell us how you manage to keep up this passion every day and follow such a busy schedule as yours?**

This question makes me look back on my journey. I feel happy to have touched a few of your hearts. Teaching and administration are my passions. This makes the process much easier. Another one of my secrets is, I **LARGELY BELIEVE IN TEAMWORK AND DECENTRALIZED TASK TO THE TEAM** percolate what you think. I try to groom the teachers by telling them more about my teaching philosophies. I made some mistakes in my initial journey. I learned from them and tried to become better.

**These couple of months have been hard for every one of us in terms of the pandemic situation that we've got. We have lost a semester of campus life of the four years of engineering. What are your plans for when the college reopens? What should we be expecting while rejoining from such a long break?**

I can guarantee that your life will be beautiful when you come back. These challenges might prevail, but we will try to work on them. Students have missed the hands-on practical experience. When you'll be back, we will have more practicals to make up for it. Don't wait for a problem to end... Like if we would have waited for this Pandemic to end, we would have lost our 8 months of Teaching, learning. We need to adapt, find new solutions, gear up, become self-motivated.

**LIFE IS FULL OF UNPREDICTABLE HAPPENINGS...**  
Let us handle it successfully!

Which quote/word/phrase has inspired you the most?

"Arise, Awake and Stop Not Till The Goal is Reached."

What keeps you going after a bad day at work?

I share everything with everybody. That is something that keeps me going.

Coffee or Tea?

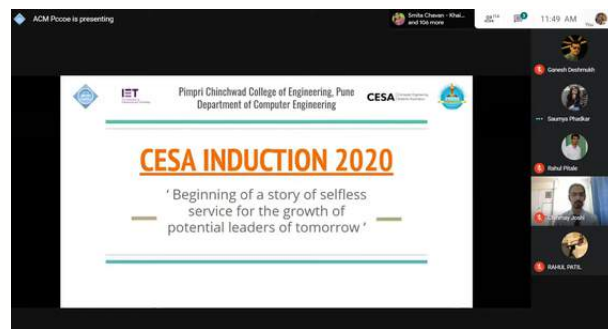
Tea... Ginger Tea.



# CESA Induction Ceremony

15 Sept, 2020

On Engineers' day, the CESA Induction Ceremony was held where Principal Dr. G.V. Parishwad, Dean SDW Dr. Sheetal Bhandari, Head of Department Dr. K. Rajeswari, SDW coordinator Prof. Rahul Patil, Academic Coordinator Dr. A.D. Thakare, R&D Coordinator Dr. S.V. Shinde, Industry Institute Interaction Coordinator Prof. Sambare, PG coordinator Dr. S.D. Thepade, current team members, former team members & students of the PCCoE computer department were present to witness the legacy, responsibilities, of the previous team that was passed down to the current team. The Ex-president, Mr. Varun Gadde virtually passed down his responsibilities, his legacy & his tenure to the current president in the form of a file being transferred to Mr. Chinmay Joshi with a wonderful quote 'With great powers comes great responsibilities'. To tribute the work of the former team a short video of their hard work, dedication, challenges they faced as a team, and the time they enjoyed in CESA as a team was shown.



The ceremony was conducted on the occasion of Engineers' Day when engineers are recognized all over the world for the work and efforts they have put to solve the problems of the world. What a day to rekindle the fire present in the minds of young engineers of the PCCoE Computer Department by a wonderful quote by Scott Adam 'Engineers like to solve problems. If there are no problems handily available, they will create their own problems'. After the ceremony, there was a guest lecture prepared for the students. The session was taken by Ms. Aishwarya Chandrasekaran, an alumna of PCCoE who is currently working as a soft skills mentor, where she highlighted several life skills and ways to handle the pandemic mentally and emotionally.

## Teacher's Day

07 Sept, 2020



Commemorating the birthday of Dr. Sarvapalli Radhakrishnan, CESA celebrated teachers' day on 7th September 2020 with a dazzle of finesse and boatloads of fun and laughter. Attended by our respected Principal Dr. G.V. Parishwad, Department HoD Dr. K. Rajeswari, and other senior dignitaries, all the staff, and Team CESA, the occasion being streamed live on YouTube and conducted on Google Meet.

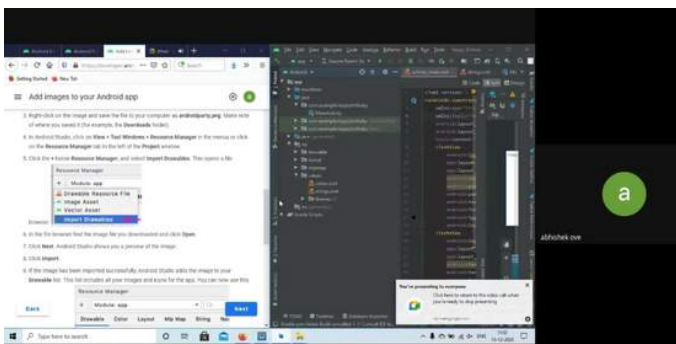
Commencing the show by paying tribute to all the hardworking staff in our college we displayed a throwback video reliving the forgotten memories we had whilst we were on the college campus. Further moving ahead, a brief speech, dedicated to all our mentors was presented forth, describing the efforts, courage, and dedication of our teachers.

CESA hosted a competition on skribbl for teachers to keep pace with ongoing trends and to have an inspiring interlude. A handful of students got a chance to perform on stream and flaunt their skills. We had dancing, singing and, cup songs as a part of the program. Guess me! A game customized by Team CESA made teachers think back to the good old days. Each and every teacher plays a part in our lives, be it directly or otherwise. Winding up the program, a video devoting a song to all the staff of the department was played to show our love and respect for the mentors. Concluding the program with a concise vote of thanks, CESA celebrated one of the finest teacher's day. We have Dr. Rahul Patil a mentor from the Computer Department sharing his part of the experience with us -- "It was a very well organized and disciplined event organized by newly inducted Team CESA."

# DSC PCCoE Introduction Session

13 Sept, 2020


Developers Student club was introduced at PCCoE on 13 September 2020 through a virtual medium by the team lead Suyash Sonawane. Developer Student Clubs are university-based community groups for students interested in Google developer technologies. Students from all undergraduate or graduate programs with an interest in growing as a developer are welcome. By joining a DSC, students grow their knowledge in a peer-to-peer learning environment and build solutions for local businesses and their community. DSC PCCoE has the aim of introducing the Google Developers program for university students, to help them build their development skills. DSC PCCoE has the communities of backend web development team, frontend web development team,



AI ML team, cloud computing, competitive coding, android development team. DSC PCCoE has organized many events and webinars such as headstart October which had webinars with hands-on experience, Github introduction, 30 days of google cloud, Kotlin study jam. There are many exciting events lined up in the coming months.

Students can register on the following link for taking benefit of the events held by DSCPCCoE: <https://bit.ly/dscppccoe-dscpage>.

Join DSCPCCoE on discord : <https://bit.ly/dp-discord>



Developer Student Clubs  
Pimpri Chinchwad College Of Engineering

## #HeadstartOctober

A workshop series designed to teach you core fundamentals, and give you a headstart.  
This October, Upgrade Yourself

**Weekly Schedule**

Frontend	Thursdays
Competitive	Fridays
AI/ML	Saturdays
Backend	Sundays
Android	Mondays
Cloud	Tuesdays

# Webinar Series



**Ms. Aishwarya Chandrasekaran**  
Soft skills mentor  
International Institute of Information  
Technology, Hyderabad

15 Sept, 2020

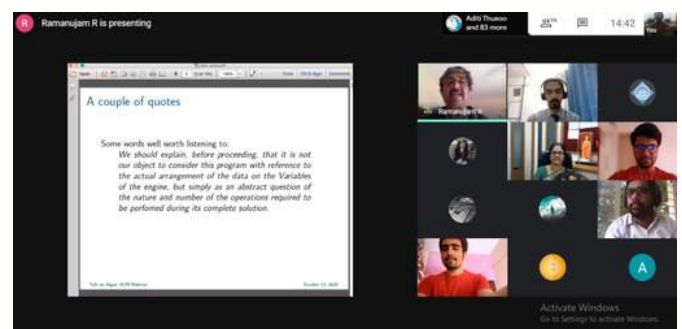
"Create a schedule, cultivate a hobby, and do not feel burnt out." The first webinar from the webinar series given by our alumna Ms. Aishwarya Chandrasekaran provided great insights on how to excel at online learning during this pandemic. Her pointers included the importance of a schedule, how to communicate effectively, allowing yourself to take a break, and most importantly not getting burnt out. The live session was attended by more than 200 students and has gathered over 2000 views on youtube. Ms. Aishwarya was keen on the importance of mental health during this pandemic, highlighting the reasons not to multitask and to develop a hobby as Rest & Recuperation. Ms. Aishwarya quotes, "This is something close to my heart. Taking up an activity that you would like to do daily, really helps you to stay sane in this work from home lifestyle. It could be gardening, writing a blog, a side hustle, or anything that calms your nerves." It is exactly what everyone needs, a sense of tranquility in this unforgiving and unpredictable situation that is taking its toll on everyone. The session concluded after a fruitful question & answer session leaving everyone with a dash of motivation, a sense of relief, and a new interest to look for.



**Prof. R Ramanujam,**  
PhD Computer science  
Institute of Mathematical Science,  
Chennai

13 Oct, 2020

Why should we learn algorithms and why should we learn algorithms? No, it is not a typo, but a unique perspective put forward by Prof. R Ramanujam, which might be interesting to anyone pursuing a related course. This second session from the webinar series was all about algorithms, their facts, their types, and the skills needed for algorithm design. The history of algorithms was traced down to the 9th century, from the Rhind papyrus algorithm to the rich man's strategy, algorithmic correctness, and difficulty were examined. What happens when you log in? The use of prime numbers in encryption algorithms, one-way functions, their effectiveness, and whether they hold up against attacks were discussed. All kinds of algorithmic facts like merge-sort run in  $O(n \log n)$  time, amortized time to search in a splay tree is  $O(\log n)$ , greedy algorithms don't always provide optimal solutions were picked up. But the main point was to look for intuition and experience because facts can always be read from Wikipedia. The crux of the webinar boiled down to learning two skills crucial for all computer scientists, Intuition - How to think about abstract computation; Language - How to speak about abstract computation.







**Dr. Navin Kabra**  
Ph.D Computer Science  
Co-founder and CTO,  
Reliscore. com

21 Oct, 2020

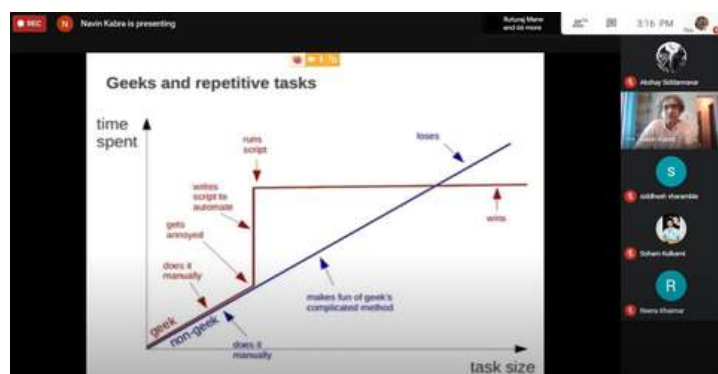


**Mr. Swijal Patil**  
Software Development  
Engineer, Amazon

23 Oct, 2020

"Most of the time your program will be called program 1, then program 2 then 3, 4, 5 and then final, but this is not how it works in the long term when working in large groups ". This line by Dr. Navin Kabra during the third session of the webinar series hit too close to home. The use of version control systems is imperative and irreplaceable in industries, and learning it is key to a smooth and organized work tree. The discussion then moved on to writing tests for programs and rewriting bad code. The co-founder of reliscore.com went on to explain the need of automating repetitive tasks and how it changes your direction of thinking for the good. "You should be a person who thinks 'oh! I should automate this' ". Learning a language like python for quick and easy scripting helps massively and successful automation is very pleasing as a result. The last piece of advice that he gave was to practice typing faster and stick to deadlines, both interrelated and very important. The time one spends on a program can be halved if the proper typing technique is learned, which is very useful for sticking to deadlines. The session concluded after a valuable discussion in which the participants got satisfying answers to an array of doubts from a very reliable source.

"I was staying in the hostel and late night we used to put up banners, right from small events to big things I participated in everything ". It was very motivating to hear this from PCCoE's alumnus Swijal Patil, currently working at Amazon. The session was about his journey from a student to a software development engineer at one of the world's biggest corporations. His talk made it feel within reach, quantifiable, and achievable. He then shared about his contribution to Amazon, proudly highlighting that his payment platform was able to handle a peak of 92 thousand orders per minute. He suggests that the knowledge exposure that you get through various clubs and student chapters is scaled and applied in companies, and hence is totally worth the time. Working and volunteering for college activities keep you updated with the emerging technologies through the community which is crucial for any student. The last pointer was to plan what you want to do next. People at Amazon are planning for their goals four years from now, "and if I can't keep up with that it means that I am lagging behind and won't be able to compete with the market", he mentions. So now is the best time to decide what you like to do and build yourself accordingly.



# CESA Recruitment

## TE RECRUITMENT

27 Aug, 2020

Every year CESA recruits new talents, who with their profound capabilities lead the department to a different level. This year the recruitment process was quite challenging for both the recruitment panel and the applicants because of the Covid-19 pandemic. Amidst all the challenges the recruitment of the new team was conducted in 4 rounds. In the first round, a google form was circulated, which consisted of candidates' personal info, academic details, and achievements. Further, these forms were scrutinized by the ex-core team and qualified students were up for round 2.

The second round consisted of an online interview, each of about 25 mins, where the core team asked questions on the basis of the post the candidate had applied for and how they can contribute to the department.



After utmost filtration, students were shortlisted for the third round, where they appeared for an online interview with the SDW coordinator Prof. Rahul Patil, ACM faculty sponsor Prof. Rahul Pitale, Prof. Ketan Desale, former President- Varun Gadde, and former Vice President- Sharvari Gaikwad.

The last and final round was an online interview with the faculty heads and the Head of the department, Prof. Dr. K. Rajeswari. In this round candidates were given different tasks that they had to complete within the given time. This interview was specifically for the core posts, and the final post bearers were listed out.

## SE RECRUITMENT

31 Aug, 2020



On the 31st of August TE, the CESA team decided to recruit new minds for the innovative progress of CESA. With the new challenge of Covid, physical interviews were out of the question. The recruitment panel came with a 3 step plan. Google forms were circulated on groups to recruit members. Within 2 days the ACM account was blowing up with 120 responses from students. In Spite of the pandemic situation, the TE team was thrilled with these many responses. Besides, the job became easier to divide and work. The recruitment panel then held a meeting talking about segregation and recruiting strategies. They divided themselves into 4 groups. The interaction began with the applicants about "why were they interested", "Their qualities", "likes", "dislikes", "Questions related to CESA", "their personal insights and views about today's technological world", "how there ideas could bring new opportunities to CESA".

An inter panel meeting was organized to discuss the applicants who could express themselves well. Each cell chose 8 quality students to be interviewed further. The ones with brilliant ideas and the ones clear about their vision were qualified for the last and the final round. This was an application-based interview wherein applicants were given situations to test their impromptu skills. After the interview, the top 4 students out of 8 were then welcomed as the new members of the respective cells. The quest of recruiting new members to the respective teams was finally done after a week-long process by ACM Chair Chinmay Joshi along with his team.

# Hacktoberfest

3 Oct, 2020

Hacktoberfest is a month-long celebration of open source software where over one lakh developers come together for the betterment of open source projects. It encourages participation in the open-source community, which only grows bigger every year. It is open to everyone in our global community. Whether you're new to development, a student, long-time contributor, event host, or a company of any size, you can help drive the growth of open source and make positive contributions to an ever-growing community. All backgrounds and skill levels are encouraged to take this challenge. After completion of 4 valid Pull Requests to any unblacklisted public repository on GitHub in October, participants earn a limited edition T-shirt along with goodies from Hacktoberfest. But we didn't stop here! We had some extra tokens of appreciation for the participants contributing to our open-source projects. Top contributors from the participants received prizes like a \$100 infrastructure credit in Digital Ocean for 60 days, exciting cash prizes in form of Amazon gift cards, E-certificates, and ACM student membership for one year. We have open-sourced various projects under different organizations already where students of our department are working remotely through GitHub and other tools. We have also included our ACM student chapter website in the open-source projects so that the students get hands-on experience of contributing to a live project.



The ultimate aim for this event was to introduce open source to the students and show them how it can be helpful for them and the entire developer community. Some statistics from the event:

- No. of the benefited audience - 199+
- No. of associated repositories - 7
- Technology stack - Python, Machine Learning, TensorFlow, Android, Flask, Dart, Flutter, Swift, HTML, CSS, Javascript, JQuery, NodeJS, MongoDB
- No. of contributors on associated repositories - 65+
- No. of forks - 147+
- No. of issues opened - 114+
- No. of Pull Requests created - 155+
- 2 top contributors on 3rd Oct - Yash Morankar and Jessica Fernandes
- 3 top contributors till 31st October - Gitesh Chawda, Rakshit Jha, and Abhishek Ove
- Top contributor till 31st October - Bhavansh Gupta





# Pointless Debates

4 Oct, 2020

Some interaction is necessary for a human to socialize with other people. But when the new SE team was recruited in CESA, sadly, the lockdown was in place. So, the sophomores faced communication issues and awkwardness around each other. This would have been a major issue for the normal functioning of the association.



But the seniors in the CESA team devised a remedy, which was called “Pointless Debates”. As the name suggests, the debates were held around pointless topics, pointless meaning, with no meaningful outcome. These debates aimed at increasing interaction in the team and doing away with the awkwardness. The topics of the debates were: 1) Online classes OR Offline Classes 2) Tea OR Coffee 3) Is it better to believe in god OR Not 4) AI is for humans, Yes, it is OR No it will turn against us. This idea worked and made many of the newbies comfortable with the seniors in the team.

## Feed the Animals

4 Oct, 2020

To make people realize the importance of animals in our ecosystem and our life, the ecologists launched World Animal Day in 1931. It is celebrated on 4th October every year. The motto, 'To raise the status of animals in order to improve welfare standards around the globe' explains a lot about the intentions behind celebrating World Animal Day. Recognizing this initiative, the Institute Social Responsibility (ISR) Cell of PCCoE, organized the 'Feed the Animals' event on 4th October this year.



Students were encouraged to feed stray animals and not let any animal starve as a way to show their appreciation for animals. Students were asked to share photos of them feeding the animals. These photos were then posted on various social media handles to motivate fellow students to do the same. While this activity should be made regular, the event was successful in creating awareness about animal welfare and created a strong foundation on the grounds of humanity.





# Digital Art Competition

Oct, 2020

This pandemic has been about exploring our hidden talents. We all love to create something, showcase our talents, and get a little appreciation, and most importantly, all learn something new. “Digital design is like painting, except for the paint never dries.”

Knowledge of visual design and digital technologies to manipulate multimedia is now essential. Coming up with this idea CESA conducted two Digital Art competitions. The first ‘Digital Art Competition’ was conducted by the Art Circle cell on 12th October to encourage students for digital art and share their creativity. The theme was our all-time favorite ‘Food’. Even thinking about it gives us goosebumps. “Logic takes you from A to Z. Imagination takes you everywhere.” Design is not just what it looks and feels like. It is about how it works.



To give the students an opportunity to showcase their designing skills and share their opinions in a very creative way NSS Cell of CESA organized a Digital Poster Making Competition on 17th November. The theme was based on Technology and pandemic (how technology can improve the pandemic situation, Indian media, and Online classes). The chosen theme was to help create an awareness of the pandemic situation and how it is changing the lives of people. Participants were given time to present their art designs and posters digitally. Using online designing platforms such as Adobe Photoshop, Krita, Autodesk Sketchbook, students from PCCoE participated with great zeal and enthusiasm.

## Weekly Coding Contest

28 Nov, 2020



CESA and PCCoE ACM Student Chapter collaborated to organize this weekly coding contest for the students of PCCoE. The objective of this event was to help students sharpen their skills and stand out in the crowd. A coding contest helps develop programming skills while giving their programming skills a test. The contest was a weekly event that was conducted every Saturday. The contest was held on the platform of HackerRank. The students were expected to solve 5 questions in one hour. The students could decide the sequence in which they wanted to solve the questions.

Every correct question code was rewarded with 100 marks and the rank was decided accordingly. The top 3 students were featured on the social media pages. The participation was huge. This event gave a boost to every students' confidence and provided much-needed encouragement.

Rank	Name	Score
1	Ganesh Pawar	400
2	Rakesh Minase	300
3	Param Jangale	300
4	Om Sarulkar	300
5	Tejas Podutwar	300

# Google Cloud Facilitator Program

Oct, 2020

The #GoogleCloudReady Facilitator program provided us with an opportunity to kickstart our career in the cloud and get hands-on practice on GCP (Google Cloud Platform) - the tool that powers apps like Google Search, Gmail, and YouTube. Along the way, we learned & practiced concepts like computing, application development, big data & machine learning using the cloud & if we ever got stuck, we had "Facilitators" who were specially trained on Google Cloud to help us. It was a great opportunity for us to be a part of. The progress was recorded on a daily basis and evaluated at the end of the program i.e. 15th October 2020 at 11:59 PM. If milestones were achieved under the time limit, the prizes associated with them were delivered.



Google Cloud

Abiding the code of conduct, post completing the program, we could showcase our achievements to the professional networks using Google Cloud-hosted quests, goodies, and skill badges that can be added to our resume and professional profiles (LinkedIn). GCP consists of a total of 2 milestones, a bonus milestone, and an ultimate milestone. On completion of all the above-mentioned milestones, the students are awarded two bags, one t-shirt, a pen, a few stickers & badges. Overall, it was a very rewarding session that had the students focus hard, enhance their skills, ultimately learning about Google Cloud.

## Pi&AI: Pune - Intro to GANs

17 Oct, 2020



Pie & AI is a series of deep learning, AI meetups independently hosted by the community groups. This event is hosted by the PCCoE ACM student chapter to help the students to get into machine learning & AI. It is a place where interested people gather to gain knowledge, share their knowledge, or to connect with people with similar interests in deep learning or AI. This series of events was started by Andrew Ng, the founder of *deeplearning.ai* and Coursera so that people can break into AI a field that is growing rapidly. They help people to know what AI is, how to specialize in AI, and how to get into a machine learning career. The first Pie&AI event conducted by the PCCoE ACM student chapter was conducted on 'Introduction to GANS' for the people

who are new in the field of machine learning so that they know more about the beautiful idea of GANs. the types of gans that are used, applications and demos about the GANs The main goal of this event was to make the viewers of the program get interested in AI, machine learning because this is an industry that is still in its growing phase but also one of the fields that can change the entire world.



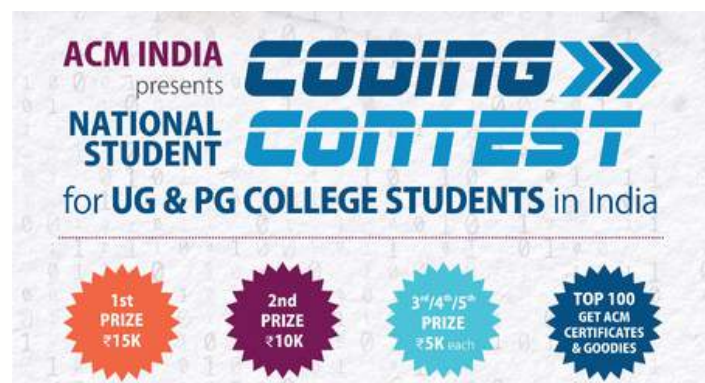




## Coding Contest

29 Oct, 2020

An online coding contest for UG and PG students was organised by ACM India for all computer students of the country. The competition consisted of three rounds of 3 hours in which 6 problems were to be solved. The winners of the competition were awarded monetary prizes and their pictures were put up on the official ACM India website. To introduce the students of PCCoE to the contest and to prepare them, an awareness session was held by the PCCoE ACM student chapter and CESA. In this session, we were graced by the presence of our alumni, Abdul Wasay and Aditya Khadse, accompanied by Chinmay Joshi, president of CESA.



Students were given an overview of coding competitions and the benefits of taking part in them. The importance of competitive coding was conveyed to the students which brought about a new wave of motivation among them and pushed them to actively participate in upcoming coding competitions including the massive participation from PCCoE in the ACM India National Student Online Coding Contest. Safe to say, this session was a great success!

## ACM India Winter School

3 Nov, 2020

ACM India Winter School is a platform which offers self-motivated students in-depth knowledge and exposure to research in advanced technology areas. They cover academic and applied research and have the best-in-class faculty from academia as well as industry. Getting selected for the winter school is a huge milestone. To create awareness among students, CESA and PCCoE ACM conducted an awareness session. Swapnajit Patil and Ameya Joshi, fourth year students of PCCoE, who were previously selected for the ACM Winter Schools, were the main speakers of the session. They started with the introduction of the Winter Schools, giving a lot of information about how things work at the ACM winter schools. In the academic year 2020-21, there were 4 schools namely



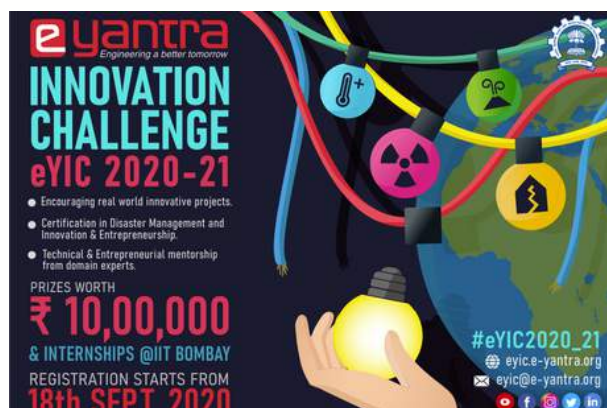
Cybersecurity, Algorithms for Big Data and ML, Natural Language Processing (for women only) and Fairness, Accountability and Transparency in AI. They explained the registration process. Then, they explained the selection criteria which depends on marks and grades, recommendations, previous internship or research experience. An important step in the registration and selection procedure is writing the Statement of Purpose (SOP). They briefly explained how to write it. They ended the session discussing their experience at the winter school and the ways in which it benefited them. They discussed how being at the winter school helps us socialise with people with the same interests and how it helps us with our higher studies. The session was extremely helpful and was successful in creating a lot of awareness about the ACM Winter School 2020-21.



## eYantra Innovation Challenge 2020-21

21 Sept, 2020

e-Yantra Innovation Challenge(eYIC) is a competition to encourage innovative projects from robotics labs set up through the e-Yantra Lab Setup Initiative (eLSI) in colleges across the world. IIT Bombay has been conducting e-Yantra Innovation Challenge eYIC as a platform to solicit innovative projects from Engineering/Science/Polytechnic Colleges across the nation. The theme for eYIC 2020-21 was Disaster Management. Students had a golden opportunity to showcase their prototype projects related to problems in Disaster Management to the potential incubators.



The organization also provided courses and topic experts as a source for the students to provide detailed information and aid in their projects. PCCOE also held an introductory session on eYIC on 21st September. The challenge needed a team of 3-4 students and a faculty member to participate. The challenge is still in process and results have not been announced yet. We really hope to have a winner from PCCOE.

## Rashtriya Ekta Diwas

31 Oct, 2020



India is a land of unity in diversity where people of diverse religions, traditions, cultures, languages, and heritage live together in a single country. India is also called the land of unity in diversity because different groups of people co-operate with each other to live in a single society. As an endeavor to maintain the bond of oneness and unification and to acknowledge Sardar Vallabhbhai Patel's efforts in uniting the nation, the country celebrates the Birth Anniversary of Sardar Vallabhbhai Patel on 31st October as Rashtriya Ekta Diwas (National Unity Day). To celebrate this day the students of PCCOE had gathered together online.

Under the guidance of the CESA President and ACM Chair Mr. Chinmay Joshi, students pledged to preserve the unity, integrity, and security of the nation in the spirit of unification of the country and also strive hard

to spread this message among their fellow countrymen while contributing to ensuring the internal security of the country.







# XRDS Selections

Oct, 2020

XRDS is the abbreviation for Crossroads, which is the ACM's magazine for the students and by the students, that is published quarterly. Like every year, the writers from the Computer Department went through a selection process in order to be recommended by the current department editors at XRDS. The selection process consisted of two rounds. For the first round, interested students were required to submit an article on the topic "Software is for humans", and the topic was open to interpretation. A total of eighteen students had applied, out of which six got shortlisted for the next round. For the second round, the students had a choice to submit either a technical article or an article about any of the computational research labs in the world. An editor at XRDS writes under one of the two columns: the Hello World, i.e. the technical articles, or the Labz, i.e. articles related to the research labs.



Therefore, the motive of the second round was to analyze the interest of the students concerning Hello World and Labz, and indeed to finalize a student for the recommendation. Ultimately, one among those six students got selected and has been recommended at XRDS by the current department editors. Presently, there are three department editors from PCCoE- Mr. Jovian Jaison, Ms. Bhargavi Jahagirdar, and Mr. Manandeep. This is indeed a great opportunity for the students who like to write, and we would really urge them to give it a try.

# Hour of Code

Dec, 2020



Hour of Code is an international initiative that helps every student have access to basic computing knowledge and have a chance to learn about it. The Hour of Code started as a one-hour introduction to computer science and was designed to demystify "code", to show that anybody at any age, from any background, can learn the basics of coding, broaden their participation in the field of computer science and present themselves with more career options. It has now become a worldwide effort to celebrate computer science, starting with one-hour coding activities but expanding to all sorts of community efforts to help students learn how to navigate in today's tech-saturated world.

Members of CESA taught basic coding concepts to students from SB Patil School and City Pride School on the 10th of December, and Subodh High School and Vijay Vallabh School on the 11th of December.



Over the course of two days, a very fulfilling interaction with many students from the age group of 10 to 14 was conducted. After a brief introduction to the subject of Computer Science and its importance, the sessions progress differently. The younger kids were given an introduction to Problem Solving, Logic Building and basic Python, whereas the older kids covered topics such as basic theory and implementation of HTML, CSS and JavaScript. At the end of this session, students were able to design a basic website all by themselves. The sessions concluded with an interactive question-answer session as well as positive feedback from all the attendees.





# ACM-W Induction Program

23 Oct, 2020

ACM-W and CSI Student Chapters PCCoE conducted a collaborative induction program on 23rd October, 2020. Due to the pandemic, it was conducted through online mode on google meet, and was streamed live on PCCoE ACM's YouTube channel. The program started with the induction of CSI and then shifted towards ACM-W. A virtual badge transfer ceremony was conducted wherein the badges were transferred from the former members of the ACM-W team to the newly elected members, followed by the speech of former and current presidents. Further, the event was addressed by respected dignitaries: CSI coordinator Prof. G. S. Sambare, HoD IT Dr. Sonali Patil, Dean SDW Dr. Pravin Kale, and Principal Dr. G V Parishwad. The honorable chief guest for the program, Mr. Swijal Patil, provided valuable guidance and motivation to the students regarding future opportunities. world.



Special insights were given on the current technologies used at Amazon and how the students should approach the same and have an edge over others by effectively “planning for tomorrow” in this corporate

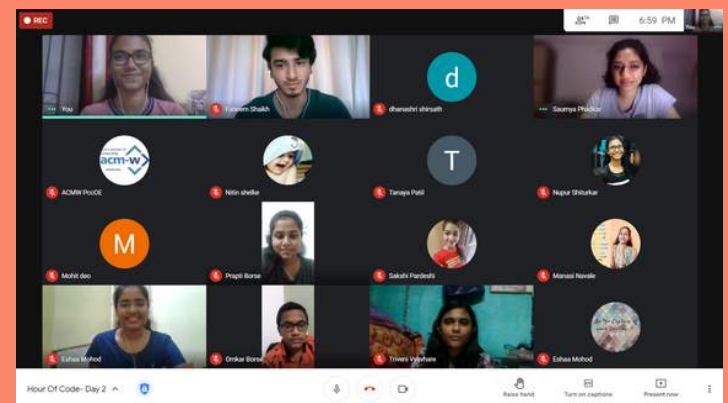
## Hour of Code ACM-W

Dec, 2020



In the Computer Science Education Week of 2020, PCCoE ACM-W Student Chapter conducted the Hour of Code for the very first time. Due to the pandemic, it was conducted through online mode for 4 schools, namely: ZP High School, Daithana PCMC Punawale School, Mata Ramabai Ambedkar English School, Khadki and Purushottam English School, Nashik. Students were introduced to the field of Computer Science and programming. The session started with the basics of Python and concluded with a program using turtle library. Practical implementation of the concepts really fascinated the students. This was an interactive and engrossing session for students to know the power of Computer Science and technology. Students also learned about the benefits of taking up Computer Engineering as a career path. This social initiative gave a great experience to participants as well as the ACM-W team.

The message conveyed through the workshop was regarding the "Importance of Computer Science".



The students of 7th, 8th, 9th standards participated here. The Resource Persons included Nupur Shiturkar, Eshaa Mohod, Saumya Phadkar, Noopur Phadkar, Shreyas Dungurwal, Faheem Shaikh, Sejal Zambare

# ACM COMPUTE

Since 2018, ACM-India has decided to focus the theme of COMPUTE towards improving the quality of computing education in the country. ACM-India announced the 12th annual COMPUTE conference at Goa University, Goa, India from October 10th to 12th, 2019. The conference was based on improving the quality of computing education in the country. In the second year of this thematic symposium, the first day overlapped with CC2020, an international effort driven by IEEE Computer Society and ACM to provide guidelines for future computing curricula, including possible new degree programs. Alison Clear, Associate Professor, SOC-Auckland, described why competency is important to all computing educators and why it has been adopted to develop future computing curricula. Shingo Takada, Professor at Keio University, described the ongoing work on the CC2020 tool to help users (such as academics, industry, and prospective students)



Association for  
Computing Machinery

understand the differences between the various computing sub-disciplines. Abhiram G. Ranade, Professor at IITM, spoke on Programming Pedagogy. Viraj Kumar, Visiting Professor (IISc), presented assessment resources for instructors teaching Introductory Programming. On 11th and 12th October, many faculties from different institutes and colleges gave different solutions on improving the teaching-learning process in Database designs, Computer Architecture, Problem Solving with Algorithms, Computer Networks, and many more. Overall, it was a very informative and well-planned session by the ACM-W.

## Grace Hopper Celebrations ACM-W



The Grace Hopper Celebration India is Asia's largest gathering of women technologists, produced by AnitaB.org in partnership with ACM-W. It was held in 2019 at Bangalore International Exhibition Centre from 6th November to 8th November. During the conference, Brenda Darden Wilkerson, President/CEO of AnitaB.org, spoke about the ACM-W's vision of reaching 50/50 tech equity by 2025. "Progress has been made in India, where about one-third of the IT sector is female", she added. Padmasree Warrior, former CEO of NIO U.S left the crowd motivated with her feat of turning a start-up into a successful IPO in just three years. Beena, founder and CEO of Humans For AI Inc. of America and several Silicon Valley startups, gave an outstanding speech on Management. "The Tech Expo at the Grace Hopper Celebration India (GHCI) 19 is a great opportunity for technology startups", she explained.



The technical workshops conducted were as follows :  
1) Product design for the Indian context 2) Real time tracing for realistic animation and timekeeping in optical telescope 3) Shared Persistent memory driven, distributed computing architecture 4) Striving towards an inclusive and healthier world through mobile apps 5) Drones 6) Ethical hacking and penetration testing 7) AI-powered data privacy  
ACM India also had a program to sponsor girl students to attend the annual Grace Hopper Celebrations (GHC) for Women in Computing in India. It was an amazing experience for the attendees at GHCI -2019. An overall great initiative by ACM-W.



# Seminar on Cyber Security & Health Awareness

A seminar was conducted on 5th March, 2020 on cybersecurity for the undergraduate students of PCCoE by the Industry expert Mr. Amey Tambe, Director at SoftTech data security, who is a focused and determined personality in the field. The session was attended by 200 students. To help students learn about the field of cybersecurity and why it is necessary in today's world (digital age) also to kindle the interest of the undergraduates in the field of cybersecurity and motivate them to choose it as their profession, paving the way for them to break into the area of IT security. The response of the session was very positive and the learners who attended the session were able to grasp new concepts based on cybersecurity.



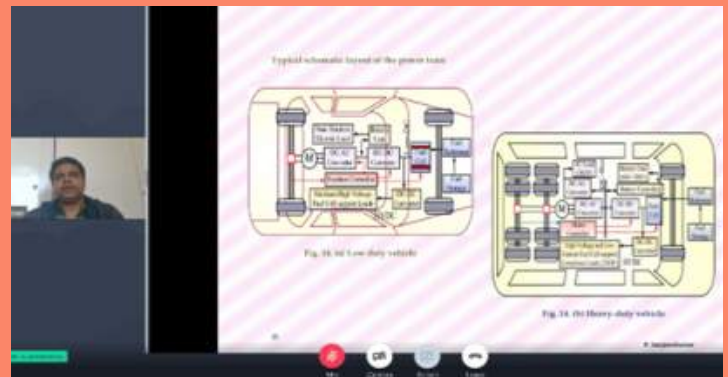
## Webinar on “Power Electronic Converter in EVs & Renewable.”



Webinar on “Power Electronic Converter in EVs and Renewable.”

The electric vehicles industry in India is making headway and is projected to grow by more than 5% a year. And it is imperative to keep in touch with the changing trends in technology.

So, PCCoE IET On Campus along with the Department of Computer Engineering, PCCoE jointly organized a webinar on “Power Electronic Converter in EVs and Renewable”.

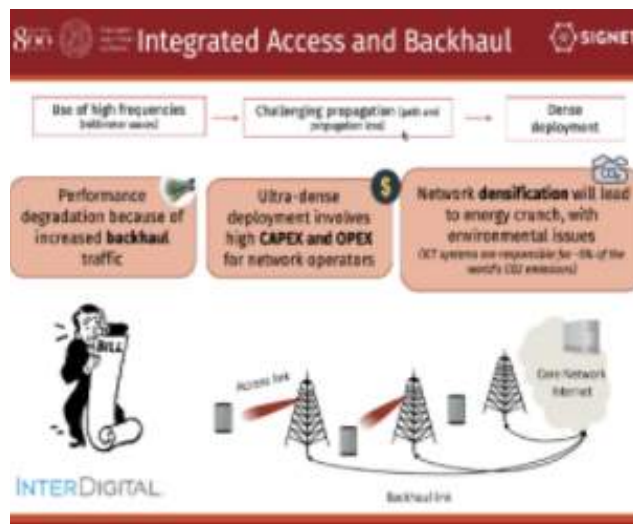


Addressed by Dr. Sanjeevikumar Padmanaban who explained the renewable energies and how batteries are required and Hardware Prototype Implementation (renewable to smart/microgrid) where DC microgrid can be used for EV charging. Over 140 students who attended the session were also familiarized with the 3 State hybrid converter and DC boost converter and how the output can be multiplied by avoiding the use of maximum amount as that may lead to losses.



# Webinar on “The Potential of Millimeter Waves for Future 5G Wireless Networks”

The network of the future is already being built as we speak. 5G is an important part of that. The speed of technological development that brings about countless new, smart opportunities enriching our lives is unprecedented. PCCOE IET On Campus along with the Department of Electronics and Telecommunication, PCCOE jointly organised a webinar on “The Potential of Millimeter Waves for Future 5G Wireless Networks” on Tuesday, 8th September 2020. Initially going over generations 1 through 4 of wireless networks and the necessity for the shift from 4G LTE to 5G networks was explained. Usage of data has increased exponentially over the last couple of years and users expect 1Gb/s data.



The upcoming technology of 5G network will provide a network of 10Gb/s. The webinar also covered topics such as introduction to 5G, Its key concepts, architecture, applications and advantages over other technologies. Along with the major role of millimetre wave in the development of 5G wireless network. Over 90 students attended and benefitted from this webinar and it turned out to be a success.

# Webinar on “Advances in medical imaging for diagnosis and treatment”



It is difficult to undertake the practice of modern medicine without certain investigative facilities like radiology. Radiology, the science dealing with radiations used for diagnosis and treatment of diseases, uses the technology of “Medical Imaging”. There have been some remarkable developments in this technology. IET Pune Local Network and PCCOE IET On Campus jointly organised a Tech Dais Webinar on “Advances in Medical Imaging for Diagnosis and Treatment” on 19th of December, 2020.



The speaker, Mrs. Mukta Joshi, MS in Electrical Engineering in Brain Imaging from the Eindhoven University, Netherlands, discussed various existing and emerging technologies in medical imaging like CT and X-Ray. She discussed the advancements in these technologies over the years. The scope of these technologies is immense. The health risks that come along with this technology and the possible solutions to deal with the issues were also discussed. The session was an overall success and ended with an interactive Q&A session.



## International Webinar on “Application of Artificial Intelligence and Internet of Things in Optimizing Performance and Management of Wastewater Treatment Plants”

A webinar was conducted on 19th September 2020 on a very crucial topic for UG and PG students which was ‘the Application of Artificial Intelligence and Internet of Things in Optimizing Performance and Management of Wastewater Treatment Plants’. It was conducted by Ms. Samantha Deoraj who is currently the Territory Manager of Nexsys. Deoraj, who is an alumna of the University of West Indies. The session explained problems regarding the wastewater situation, what wastewater treatment plant (WWTP) is,



and its significance also the technologies that are emerging in this field, and how IOT can help in the WWTP. The webinar was an overall success because students learned about different fields of technology that can help us solve the issue of wastewater.

## International Webinar on “Network and Application Security”



Another impactful webinar conducted by the PCCoE IET on campus was on the topic, “Network and Application Security” on behalf of the IET Pune local network. The eminent speaker for the event was Mr Vishal Maurya. Mr Maurya discussed various important topics such as the basics of networking, the importance of security and opportunities in the field of network and security application. The focal point later shifted to the foundations of networking, the contemporary Industry Standard Practices that are prevalent. Mr. Maurya also spoke about the importance of foolproof coding practices to avert any kind of security compromise.

Viewers also learned about Cyber-attacks commonly used by hackers and how to stay anonymous on the web. The Session was concluded with an interactive Q&A Session where viewers asked probing questions pertaining to the topic.



# CSI INDUCTION

22 Oct, 2020

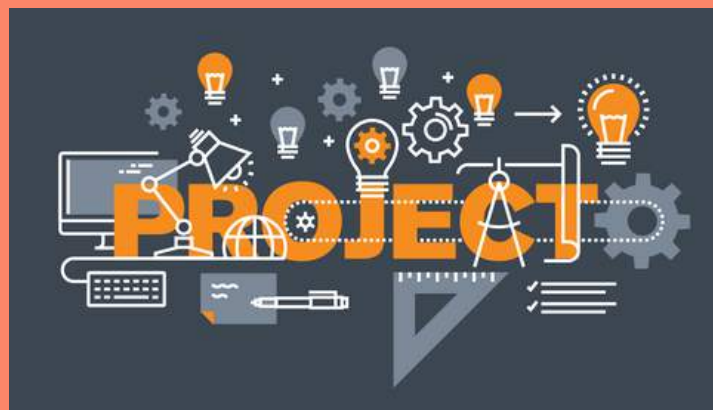
The PCCoE CSI Members organized the induction program of the CSI STUDENT CHAPTER. The session was held using the online platform Google Meet. A total of 94 students attended the session and out of them, 12 were selected to form the team of PCCoE CSI Student Chapter for the academic year 2020-21 to coordinate and organize various events under the PCCoE CSI Student Chapter for students. The chief guest for the event was Mr. Swijal Patil, a Software Development Engineer at Amazon, Seattle, WA. He is an alumnus of the PCCoE Computer Department, 2012 batch. He motivated the students and wished them luck for their future.



# BE PROJECT COMPETITION

Dec, 2020

The PCCoE CSI Student Chapter organized the BE Project Competition. In the competition, 12 of the PCCoE alumni were involved as reviewers, and a total of 59 project groups participated. This competition was held using the online platform Google Meet and 12 sessions were held during the competition. The project groups had to prepare a presentation for their project and present it to the reviewer, who then gave valuable inputs to the group. First prize of Rs. 1500 was won by the "Smart Visitor Management system using computer vision techniques" project and the second prize of Rs. 1000 was won by the "Predictive Analysis of Lung Diseases using AI" project. Overall, the event was conducted successfully.



The speaker, Mrs. Mukta Joshi, MS in Electrical Engineering in Brain Imaging from the Eindhoven University, Netherlands, discussed various existing and emerging technologies in medical imaging like CT and X-Ray. She discussed the advancements in these technologies over the years. The scope of these technologies is immense. The health risks that come along with this technology and the possible solutions to deal with the issues were also discussed. The session was an overall success and ended with an interactive Q&A session.



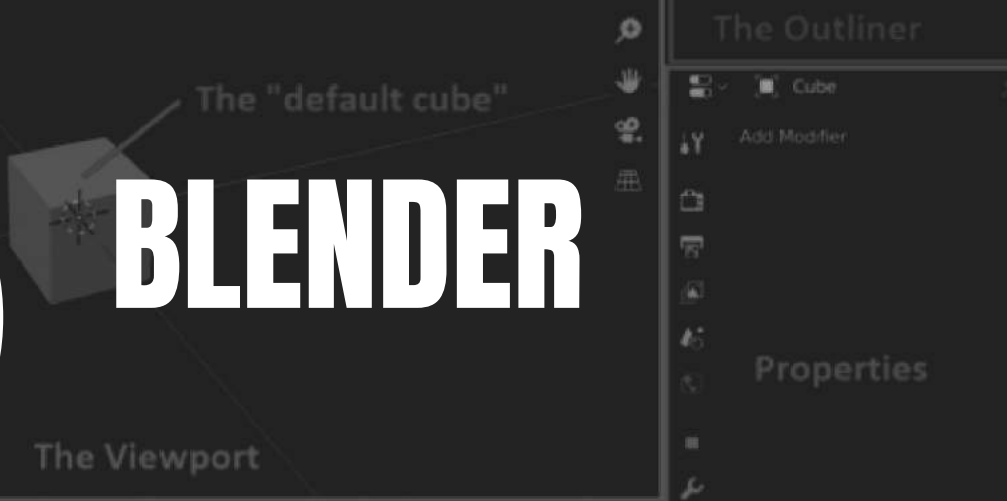


# Software is for humans

We are currently living in an era, where most of the things around us have their basic functioning dependency on ‘Softwares’. The prime goal of all the biggest conglomerates, as well as startups out there, is to automate most of the mundane tasks that humans carry out every day and to make this happen, the most effective power that they have used over the years is the ‘Power of Computation’ and to communicate with this power, ‘Softwares’ have played a major role. Today, the effort to just send a message to our loved ones has decreased from weeks to milliseconds, when it comes to considering time as a factor. Even when a common person, who has no knowledge of programming, desires to make a website for his business can easily build one with just a few clicks using some software like wix.com - website builder. And all of these advancements would look really difficult if, Grace Hopper could not build the first compiler in 1952 which would help us to communicate with these smart machines - Computers. And then over the decade of the 1960s, many crucial software were built which helped us to write emails to our peers, Apollo 11 lunar module’s code helped it to free some space for processing. And over the span of 30 years from 1970-2000 there were many software written that are the backbones of some of the advanced technologies present today like ‘Telnet’ - the first public data network,

Tim Berners-Lee’s ‘The HTML Hyperlink’ which has helped to connect the world of web applications in this vast ocean known as the internet and to easily access this pool of information, ‘Google’ was founded. Then looking upon the journey from 2000 until today, there are so many fascinating applications of computing in various domains like ‘Bitcoin’ as an alternate currency and post this the wave of social media and entertainment had a boom using the powers of computing, just for example - ‘the like button on Facebook’ had such an impact on all the future platforms. As technology has been becoming an inherent part of our daily lives, it also has some negatives to it, the same as the ‘two sides of a coin’. But we all can agree that the software has always been the gap between humans and machines and this journey from axes to hammers, wheels to cars, and calculators to computers has had one common intention - ‘to improve the life of humans’ and to achieve that goal, the software has played a major role.

- Shrinivas Patil



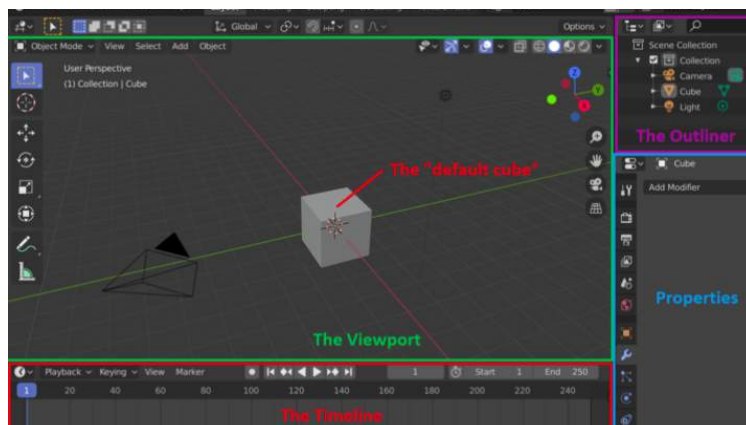
## Key Features

- Blender is a fully integrated 3D content creation suite, offering a broad range of essential tools, including Modeling, Rendering, Animation and Rigging, Video Editing, VFX, Compositing, Texturing, and many types of Simulations.
- It is cross-platform, with an OpenGL GUI that is uniform on all major platforms (and customizable with Python scripts).
- It has a high-quality 3D architecture, enabling a fast and efficient creation workflow.
- It boasts active community support in the form of forums.

## References

- 1] BlenderGuru Youtube Tutorials:  
<https://www.youtube.com/channel/UCOKHwx1VCdgnxwbjyb9Iu1g>
- 2] Blender 2.91 Manual  
<https://docs.blender.org/manual/en/latest/index.html>
- 3] Guide to Blender:  
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- 4] Blender Secrets:  
<https://www.blendersecrets.org/secrets/how-to-use-blender>

Animations have been a major part of all of our lives. Whether it was cartoons, anime, or Disney movies, all of us have connected with animated characters at some point in our lives. These favourite characters planted a seed of creativity in our minds that grew into a dream of making them. All of us have at one point thought of making some sort of animation or having this as an extra skill. One way to make this possible is by using Blender which is a free and open-source 3D creation suite. It supports the entirety of the 3D pipeline—modeling, rigging, animation, simulation, rendering, compositing and motion tracking, even video editing and game creation. Advanced users employ Blender's API for Python scripting to customize the application and write specialized tools; often these are included in Blender's future releases. Blender is well suited to individuals and small studios who benefit from its unified pipeline and responsive development process. Examples from many Blender-based projects are available in the showcase. Being a cross-platform application, Blender runs on Linux, macOS, as well as Windows systems. It also has a relatively small memory and drives requirements compared to other 3D creation suites. Its interface uses OpenGL to provide a consistent experience across all supported hardware and platforms.



## Interface :

It is overwhelming for everyone to face any modern programming interface. While it would take more than one penned-down article to describe each aspect of the interface, this is our interpretation of the Blender interface at first glance.

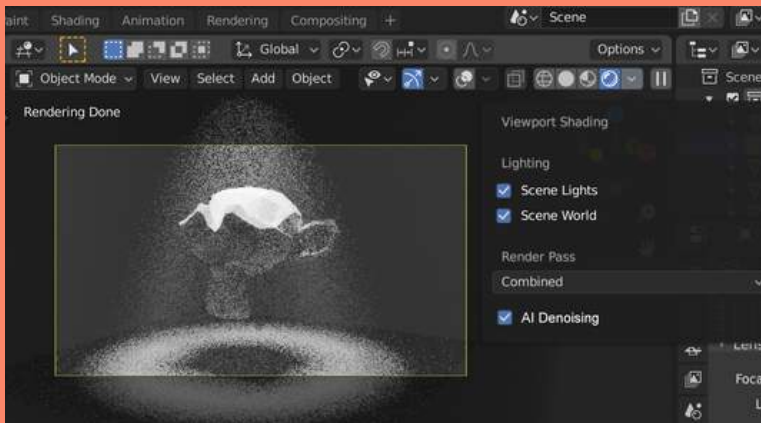
The good news is, you don't need to have in-depth knowledge to get started. A lot of fun can be had right away! Here's an explanation of the must-know parts of the interface:

**The Viewport** is where you will spend 90% of your time. This is where you see your 3D models. A default cube is visible on the viewport which can be used or deleted. The viewport is where you add details to the model manually, and where you transform the objects. All your transformations, animations, etc take place here.

**The Properties Tab** is where a developer finds extra options to add objects and modify existing objects. The Properties has several categories, which can be chosen via tabs (the icons column to its left). Each tab regroups the properties and settings of a data type and much more!

**The Timeline** is the control that makes any animation visible on the viewport. Pressing the Spacebar activates and deactivates it. You will notice that the blue play-head starts going from left to right as you press the spacebar. If the scene on your viewport had some animation, it would now become visible. To interrupt the playback, click the Spacebar again.

**The Outliner** is where all your objects, including the camera and any lights that might be on your scene, are located. In addition to the default cube, the blender gives you one camera and one light.



## Viewport Navigation :

Navigating through the viewport efficiently is very important as it reduces the working time on any project.

Click the central mouse button and move the mouse to freely rotate your viewport around the model, also known as 'orbiting'. By scrolling the middle button, you can zoom in and out.

To freely move your model, press 'G', and the object gets attached to your cursor. Right-click would cancel the action and left-click would confirm the action. To move along an axis, press the letter of the axis (eg. 'X'/'Y'/'Z'). To rotate or scale the object, the right option can be selected from the menu bar on the left side of the screen or simply by pressing 'R' for rotating or 'S' for scaling the object. Select something like the default cube by left-clicking on it. Left-click on an empty spot in the viewport to deselect it.

To shift to another section of the viewport, press 'Shift' and the middle scroll button will take you anywhere on the viewport.

To delete the default cube or any other object on the viewport, press the 'Delete' button on your keyboard or simply press 'X'

To add an object to the viewport, select Add from the top-left menu (press 'Shift' + 'A') and choose the object that looks closest to what you desire. Before clicking anywhere else, finalize the basic settings for the object as the option to change them disappears after another action.

Apart from these basic instructions, if you forget where an option is or its shortcut, simply pressing 'F3' should give you a search bar where you will easily find anything that you need.

And remember, imperfection is virtual perfection. For the animations you make to be perfect, they must be imperfect or realistic. Just like your initial performance in animations using Blender. The point is to stick with it!

Watch the following video to know what you can do too with Blender - [bit.ly/3s4bsgd](https://bit.ly/3s4bsgd)

- Saumya Phadkar



# CESA Awards



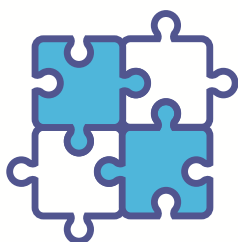
Every good thing calls for appreciation. So, every year, some of the students from the final year of our department are awarded for their overall performance. The most prestigious among these awards is the Best Outgoing Student of the Year award.

## Best Outgoing Student of the Year award.

Several parameters are considered for this award like academic excellence, excellence in Co-curricular and extra-curricular activities, leadership quality, participation in Social activities, participation/excellence in competitive examinations, placement/higher studies/entrepreneurship status, involvement in different activities for self /department /institute development, internships, certifications, etc. undergone during the tenure and needless to say, the faculty opinion.



**Nature of the award:** Special trophy, Certificate, and Rs. 5,000/- cash.



## Most Innovative Student of the Year award

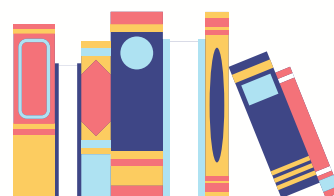
This award is given to the student who has shown outstanding performance during his tenure in the research and innovation domain.

**Nature of the award:** Trophy, Certificate

## Academic topper

This award will be given to the student who is an overall top rank holder in the University examination.

**Nature of the award:** Trophy, Certificate



## Best Salary Package Achiever

This award will be given to the student who gets the best salary package through campus placement/off-campus drives for the respective year.

**Nature of the award:** Trophy, Certificate

## Achievers in the Higher studies entrance examination, entrepreneurship

A student who performs exceptionally well in the higher studies entrance examination, or has any achievements in entrepreneurship, etc. is considered for this award. **Nature of the award:** Trophy, Certificate



# The Community



## Benefits Of CESA

CESA(Computer Engineering Students' Association) is a community of students that aims to help their fellow mates by arranging competitions, workshops, and similar events which help in the overall development of the students. The benefits of CESA are listed below:

- Members get in touch with seniors and resource people, so they get to know about various things like events, software, and resources from the people who have experienced it.
- Members gain comprehensive exposure which helps them in their overall growth.
- Members learn about working in a team and coordinating with other members which is a valuable skill in the corporate world.
- Members learn the etiquette of interacting with seniors, faculty members, and peers which helps them.
- Members get a chance to interact with international bodies in order to help them connect globally.
- Members have exclusive access to our Higher Studies Cell and Coding club.
- Members get a concession in fees, travel support if they participate in events conducted by ACM. A higher preference is provided to our members on a global scale.
- Members are funded by CESA for their innovative ideas to help them achieve recognition globally.
- Members can nominate themselves for various awards by CESA and also provides them with a platform to help them publish their work viz CESA Insider, Website, Facebook, etc.

ACM(Association for computing machinery) is the world's largest educational and scientific computing society which delivers resources that advance computing as a science and a profession.

The members are provided with a learning centre where online books, videos, and webinars are available. A digital library that has over 2 million pages of text, platform to communicate with other members, weekly tech news to keep the members in touch with the current trends in the tech industry, they get a discount on ACM journals and magazines.



ACM-W Student Chapter aims to motivate and support women in the field of computing. The main focus of this chapter is to help women grow in the technical as well as non-technical areas. Workshops are conducted w.r.t. current technology trends to increase technical knowledge as per the industry requirement. Girls are highly motivated to participate in the Grace Hopper Celebration which is the world's largest women technologists gathering. As for the non-technical part, a wide range of workshops and webinars are organized to create awareness about entrepreneurship, health issues, opportunities after graduation, etc.

# CESA

Computer Engineering  
Students Association

CESA is a Team, a Brand,  
and a Family...

**Vision** To be a Premier Hub in Computer Engineering in Education and Research.

**Mission** To build technologically competent and ethically strong individuals for serving the needs of industry and society by providing state-of-the-art resources, opportunities for Learning and Research in Computer Engineering.

## CESA INSIDER

Fill out this form to contribute to the next edition

<https://forms.gle/TA9bKoRLjW7oMTZ9>



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