



CESA INSIDER

2021 - 2022 | ISSUE 02

Technology in the world of pandemic

How technology has played a key role in this time.



"Nothing is permanent."

Pg 10 An interview with Mr. Anand Birajdar

Sonchidiya

Indulging in accomplishments influenced by imagination

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Pandemic as a Catalyst for Indian Tech Stratups

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A chase to the new normal

Our Inspiration



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



Late. Smt. Lilatai Shankarrao Patil
Ex President,
Pimpri Chinchwad Education Trust



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Dr. Girish Desai
Executive Director



Dr. G. N Kulkarni
Director, PCCoE

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 studiesall 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'm happy and overwhelmed that we are moving to the issue 2 of "CESA INSIDER" which brings the students and teachers of various skillsets 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. The main objective of the SDW cell is to work for Students Development and Welfare in line 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 Student Chapters 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 Second 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

ACM Faculty

Sponsor

SDW Coordinator

Advisor



**Prof. Ganesh
Deshmukh**

CESA Coordinator

Advisor

Computer Engineering Student Association is an Association for the students and by the students which provides a platform for students to showcase their talent and contribute to the overall development of the student. Team CESA organizes many events which makes students to grow professionally. Being part of team CESA really supports students to develop soft skills, to learn how to work with the team and also create networking opportunities. Education has changed

dramatically due to pandemic with the distinctive rise of e-learning and team CESA consistently maintains the engagement of students in different activities.

The CESA Insider highlights glimpses of every activity, technical and non-technical including remarkable achievements of students at the National and International level. I wish good luck to Team CESA and best wishes for future endeavors.

Team CESA

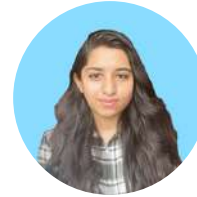
Core Team



Saumya Phadkar
President



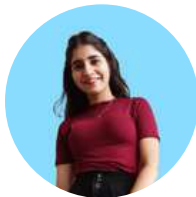
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Mrunali Padwal
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Param Jangale
Co-Secretary



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Palak Gupta
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Shamik Ghadge
Webmaster



Vedant Chaudhari
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Apoorva Datir
Webmaster



Mrunali Yewale
Design Head



Jessica Fernandes
Design Head



Tejas Jadhav
Social Media
Head



Amisha Sherekar
Social Media
Head



Yash Kandalkar
Marketing and
Sponsorship Head



Suraj Dhamak
Marketing and
Sponsorship Head



Prasad Zore
Membership
Chair



Atharva Shirgave
Membership
Chair



Akshay Shinde
Membership
Chair

Cell Heads



Prof. Harshada Mhaske
Communication &
Personality Development



Prof. Atul Pawar
Professional Development



Prof. Ketan Desale
National Service Scheme



Rutuja Patil



Ovee Manolkar



Sahil Adrakatti



Mrunali Pandav



Sanket Kulkarni



Tanvi Nimbalkar



Prof. Priya Surana
Higher Studies



Prof. Ganesh Deshmukh
Coding Cell



Prof. Rajesh Lomte
Art Circle



Aishwarya Gaikwad



Sumedha Zaware



Shrutika Ambre



Raghav Dodla



Aditya Yadav



Sakshi Shinde



Tanvi Mehta



Vedant Nerkar



Monika Dhokale



Shantanu Mirajgave



Prof. Rajesh Lomte
Photography



Prof. Rajesh Lomte
Sports



Prof. Sagar Salunke
Institute Social Responsibility



Omkar Bhor



Atharv Sontakke



Shruti Mankar



Rushikesh Narlawar



Diya Tilani

Professional Chapters



Prof. Rahul Patil
ACM Faculty Sponsor



Saumya Phadkar
President



Soham Kulkarni
Vice President



Mrunali Padwal
Vice-President

**BEST STUDENT CHAPTER AWARD
RUNNER UP 2021**



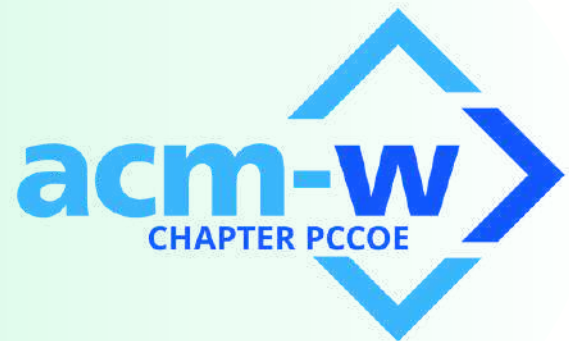
Shrutika Ambre
President



Jyoti Tapkir
Vice President



Prof. Shailaja Pede
ACM-W Faculty Sponsor



Google Developer Student Clubs
Pimpri Chinchwad College of Engineering



Prof. Ganesh Deshmukh
Faculty Advisor



Rohit Joshi
GDSC Lead

Professional Chapters



The Institution of
Engineering and Technology



Prof. Anuradha Thakare
IET Faculty Coordinator



Yash Vibhute
President



Prof. Kapil Tajane
IET Faculty Coordinator



Parth Shrivastava
Vice President



Sherwin Kati
Vice President



Prof. Santosh Sambare
CSI Faculty Coordinator



Prof. Atul Pawar
CSI Faculty Coordinator



**INSTITUTION'S
INNOVATION
COUNCIL**
(Ministry of Education Initiative)



Ms. Anagha Chaudhari
IIC President



Heet Visawadia
Student Lead



Dr. Gopal Upadhye
IIC Co-Convener



Hardik Fulfagar
Student In-charge



Prof. Rahul Pitale
Faculty Advisor



Rohit Agrawal
Student In-charge



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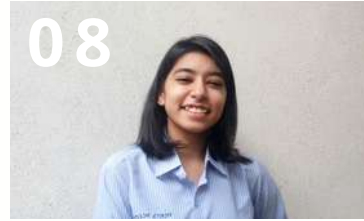
Technology in the pandemic

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About our community



Achievers!

The key aspect of computer science engineering that drives me to do it is that how you can solve very complex problems by dividing them into smaller subgroups and solving each by some algorithms to get the whole solution.



HARISH DALAL
Virtusa Neuralhack
Hackathon Winner



TEJAS MORKAR
ACM XRDS
Department Editor

Very few things are as exciting and complex as developing a piece of program that can work as intended. And a way to enjoy the final outcome of a beautifully crafted code is to document, write and share it out there with everyone. It is an ever-turning wheel of learning and sharing new tools and technology.

Coffee, Vscod, and the courage to try new things is the finest combo. Your perseverance to pursue your idea, turn it into reality and make it to the finish line is what counts the most.



PALAK GUPTA
Toycathon Winners



SHREYAS DUNGARWAL
Toycathon Winners

I am ambitious and driven. I thrive on challenge and constantly set goals for myself, so I have something to strive towards. I'm not comfortable with settling, and I'm always looking for an opportunity to do better and achieve greatness.

I am a Computer Engineering student who believes in ease of living through software. I trust and believe that for one to achieve his goals in life "The sky is the limit" .



SHARVI GHOGALE
Toycathon Winners

Achievers!

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.



SUYASH SONAWANE
Cloud Native Hackathon
Winner



ROHIT JOSHI
Google DSC PCCoE Lead

The only way to do great work is to love what you do!
Know something about everything and everything about something. Enjoy the process and the result will be better than anything else you could have imagined.



Shreya Pillai



Rutuja Nemane



Nupur Shiturkar



Anjitha Nair

FIRST PRIZE

ACM-W India National Level Virtual Hackathon 2021
for Women in Computing.



Rohit Deshpande



Harsh Borse



Abhishek Bamnote



Omkar Bhale

FIRST PRIZE

GAMEATHON 4.0
Organized by JIT ,Bangalore

IRON MAN

70.3

MR. ANAND BIRAJDAR

What did you want to become when you were 12?

Police officer

If you had the power to correct one problem in the world, what would you fix?

Some educational policies

One thing to a 20-year-old you

The definition of success is very subjective. Satisfaction matters more.

What was your favorite subject in school?


Physical Training

One book you'd recommend the students to read.

Samidhā-Book by Sādhanā Āmaṭe

Your favorite sport?

Swimming

 @birajdaranand

Why did you choose teaching as your profession?

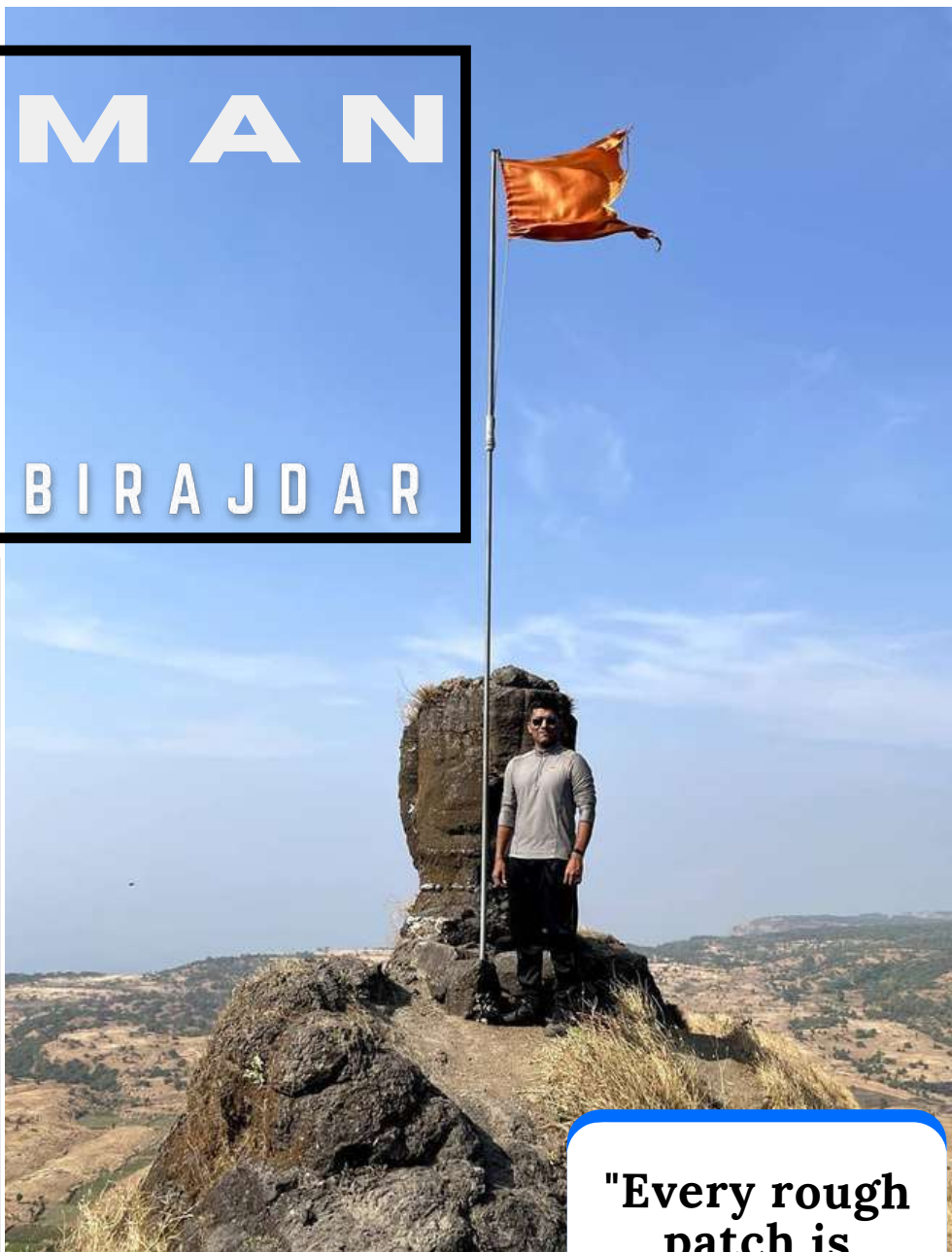
I was always passionate about teaching.

As an engineering student, I used to teach my juniors as a hobby. After

passing out from my college, I worked in the software industry for a couple of years. I soon realized that this profession wasn't meant for me. I started teaching students every day before my working hours, to fulfill my passion.

It has been considerably difficult for everyone, teachers, and students, to adapt to online education. What has been the most difficult part about the shift from offline college?

Teaching is not only about explaining things from a presentation. A good teacher reads the student and tries to make learning easier for



"Every rough patch is followed by better days"

TEACHER'S INTERVIEW

the student. It has been difficult to do that through the laptop screens. Some subjects require in-person energy. It makes learning very responsive. The lack of interaction among peers has been the toughest.

With the shift to the online mode, how do you manage to indulge in your favorite sports activities?

I have always enjoyed trekking and different sports like volleyball. I participated in "Ironman 70.3". It is a triathlon of swimming, running, and cycling. I managed to complete that. I have also been passionate about rock climbing. In May 2020, I completed a mountaineering course from Arunachal Pradesh.

Students have always been fond of you because of your unmatched energy. How do you keep up your zeal through the year?

In my class, I try to give students the freedom to develop themselves. It is important to treat students as individuals with opinions rather than just kids. They thrive most when they have their space. It isn't me who gives them the energy, it's the other way round. Interaction with students is what keeps me energetic throughout.

What experiences have made you feel successful? What is success to you?

There are a number of students studying in engineering colleges going through a self-focused way of learning. "THE ONLY ME WAY". Doing something for the betterment of society, being empathetic, is the definition of success for me.

In the pre-final and final years of engineering, students find it difficult to give time to themselves. What would you suggest the students to do, in order to keep their mental health intact?

It is absolutely necessary to spend time with yourself, pursue your hobbies. Education is not the only factor that will define your life completely, your relationships with everyone around you, physical health, every small thing that you deliver overall helps you to be the best version of yourself. There are going to be many people doubting your abilities for tackling these obstacles. You need to be mentally healthy which can be achieved by pursuing your hobbies.

Would you like to share an incident from your life that would motivate the students?

I took up the challenge of swimming for a distance of 2km. Being a person with aquaphobia, it was difficult for me to overcome my fear, but believing in myself and working hard with consistency, I achieved my goal.

Were there any events that exasperated you or created a sense of burnout? What got you through it?

I don't have such incidents wherein I feel burned out.

I am a believer of Art of living and I always have certain principles in my mind. Whenever I face a difficult situation I remember that "this time will pass". The thought that, "Every rough patch is followed by better days", keeps me motivated.

Your favorite place you've wandered to?

Hampi

Your life motto

This time will pass

Favorite subject to teach.

Data Structures and Object-Oriented Programming

If you could give one piece of advice to all the students, what would it be?

Try to be a part of society and work for your community.

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

National Service Scheme

What keeps you going after a bad day at work?

Tomorrow

ANANTA

01 MARCH 2021

Anantya is a national symposium conducted every year by the PCCoE CESA Team for college students. The various categories of events conducted are coding, arts, photography, general knowledge, idea pitching, designing, and gaming, so everyone has a chance to participate, showcase their skills, and win exciting prizes. Anantya was launched in 2015 and has been held yearly ever since. This year, it was different as it was conducted online due to the pandemic, the team faced many challenges and, by overcoming them with their hard work and dedication, they were able to execute it successfully for over 1000 students. It is a theme-based event so the theme for this year was “8bit to 8k” which was showcased on the website of Anantya where people can get a brief idea about the event and if they faced any query regarding a particular event they were free to contact the team.

Anantya2k21 was comprised of events such as:



BRAIN APTI

An aptitude quiz conducted in three rounds to test the knowledge, problem-solving skills, and grammar of the participants. With each round, the difficulty level increased.

First: Avi Raghuvanshi

Second: Om Dodani

HACKATHON

A technical event arranged in collaboration with IET On Campus wherein participants had to implement their innovative ideas and develop their projects within the stipulated time.

First: Sakshi Gupta

Second: Piyush Chaudhari



Innovation Quest

A group-based event conducted by the CSI team of PCCoE in which participants had to submit a ppt regarding an innovative idea from which the most innovative ideas were shortlisted, and the participants had to present their idea in front of the jury members.

First: Pranav Kulkarni

Second: Prince Gangurde



PERPLEXO

A 4-day thrilling event where the participants got to test their knowledge in the wide domain of the internet and technology in form of a series of questions, a trail of hints followed by a sequence of surprisingly tricky answers along with a live global ranking.

First: Soham Kulkarni & Palak Gupta

Second: Amit Kerdekar



CODIGO

A technical event to test the competitive coding skills of the participants through different problem statements that were given to them.

First: Jitendra Joshi

Second: Harish Dalal

RETRACER

An event for the coders to test their skills. In the first round, participants were given some codes and they had to write the problem statements for the same. Those who were shortlisted went for the final round in which they were given codes with blank lines and 4 options and they had to select one of them and justify their choice.

First: Vishal Pange

Second: Aniket Dhole





BAMBOOZLED

An event that tested the general knowledge of the participants. Many interesting trivia questions from various fields like sports, history, geography, entertainment, arts, etc were included in the rounds.

First: Kunal Shriwas

Second: Atharva Shirgave

Express an Emotion

An event in which participants were given a choice of 6 emotions, out of which they had to portray their chosen emotion using any form of art.

First: Ishwari Patil

Second: Anjiha Nair



Snapshots redefined

An event based on the photography skills of the participants in which they had three categories for which they could submit their photographs. They were “Emotion depict”, “Architecture Photography” and “Dish Decor”.

Theme Based: Omkar Bhor

Dish Decor: Mrunali Padwal



SUPER CUT ANANTYA

An event in which participants had to showcase their editing skills where they were given a raw video and audio clips and they had to create a 30 to 90 seconds video.

First: Saish Sawkar

Second: Abhishek Bankar





It's Debatable

A team-based event in which the two teams were to debate on interesting topics such as "Mental Health v/s Physical Health" and "Western Parenting style v/s Eastern Parenting style".

First: Varun Gadde & Vedant Upanlawar
Second: Saumya Phadkar & Tejas Jadhav

REEL-ISTIC SPREE

An event consisting of a quiz of three rounds held specifically for people who love watching TV series and movies.

First: Shivam Khandelwal
Second: Harshwardhan Kale



GAMING

An event designed for gamers. The participants had to choose one game from the given options to play. Options were Valorant and COD Mobile. They were team-based games. The team with the higher score advanced to the next round.

Valorant: Saish Sawkar
COD Mobile: Abhishek Lonkar
Chess: Yash Naval



Webinar Series



Mr. Rishi Baviskar
Global Cyber Experts Leader
Allianz Risk Consulting

14 May, 2021

"Introduction to personally identifiable Information (PII), PII Confidentiality and Safeguard"

A webinar on Information and Cyber Security (ICS) was conducted for the fourth-year computer engineering students of PCCoE on 14th May 2021. The guest speaker for the webinar was Mr. Rishi Bhaviskar. He graduated with Bachelors's in Engineering with Honors, MSc, CISSP, CISM, and CDPSE. He has more than 20 years of experience in information technology, information security, and industrial automation cybersecurity. He also provides consultancy in Cyber liabilities and cyber business interruption.

The agenda of the webinar was to give brief information about Personally Identifiable Information (PII) and its confidentiality, security, etc. The well-organized event fulfilled the objectives of enlightening the minds of students in the domain of cybersecurity.



Mr. Kaustubh Choudhary,
Scientist, D-DRDO
Cyber Security Office

21 May, 2021

"Cyber Crime, Cyber Terrorism (Section 66F)"

Another interesting webinar series on "Cyber Crime, Cyber Terrorism (Section 66F)" was given by Mr. Kaustubh Choudhary who is currently working in IT Wing, CME, Pune as a Cyber Security Officer.

He discussed the provisions of the Information Technology Act of India and also gave various practical examples of different cybercrimes like cyberbullying, online predators, etc. This created awareness amongst the students about the crimes through all sorts of social media platforms and precautions one must take while using them. He also shared information about the Government portal for reporting cybercrimes. The 5 takeaways for the prevention of cybercrime were of immense use to the students. He discussed various symptoms which indicate whether one's computer is being compromised.

Regarding the future of cyber terrorism, he quoted "The modern thief can steal more with a computer than with a gun. Tomorrow's terrorists may be able to do more damage with a keyboard than with a bomb". He discussed steganography and various extreme cyberattack cases. The presentation ended with the phrase "From along we feared WMDs (weapons of mass destruction) but now it is time to fear new kinds of WMDs which are weapons of mass Disruption".



Mr. Navneet Sharma
Senior Developer

28 May, 2021

"CMS (Wordpress and Joomla)"

Content management system, often abbreviated as CMS, is a tool that helps users to create websites without needing to write all the code from scratch.

The advantage is that any non-technical user can easily create and manage web content with extensive frontend customization options without the hassle of maintaining the infrastructure.

This session from the webinar series, taken by Mr. Navneet Kumar Sharma, explored WordPress and Joomla, the two most popular CMS tools. Their capabilities, scope, ease of use, as well as their pros & cons. As the session came to an end, it was concluded that WordPress is intended to be more user-friendly with a small learning curve, whereas Joomla is more geared towards developers who aren't afraid to "get their hands dirty" working with servers. All in all, the session was appreciated and well received by the students.



Mr. Jamal Mohammed
Senior Developer
Accenture

29 May, 2021

"NodeJS, WebServices, Bootstrap"

A web service is any software or service available over the Internet or private (intranet) networks and uses a standardized XML messaging system.

This talk by Mr. Jamal Mohammed covered web services, NodeJS, Bootstrap and gave a brief overview about them.

Node.js is an open-source, Javascript runtime environment on Chrome's V8 that lets you effortlessly develop fast and scalable web applications. Bootstrap is the most popular HTML, CSS, and JavaScript framework for developing a responsive and mobile-friendly website.

This session benefited more than 100 students and ended with an interactive Q&A session.



Mr. Kaarthik Sivakumar
Principal Engineer, Cisco

27 August, 2021

ESP on "Security and Trust"

As rightly quoted, "Absolute security is a myth. You can always strive for it, but nobody will ever get there". This eminent speaker program, taken by Mr. Kaarthik Sivakumar and organized by PCCoE ACM Student Chapter stressed the current two pressing issues i.e. Security and Trust.

It started with signifying the impact of cyber-attacks on various industries ranging from hospitals to tech conglomerates.



The speaker then zoned in on the different types of cyber-attacks and the types of tools used to mitigate these. The unique concept of Chain of Trust was then introduced. He talked about how we users can decide and should in fact decide, what devices to trust and how much control should we surrender to them.

The session concluded with small helpful tips with which we as a user can protect ourselves. It was a very interesting and detailed insight into the world of security.



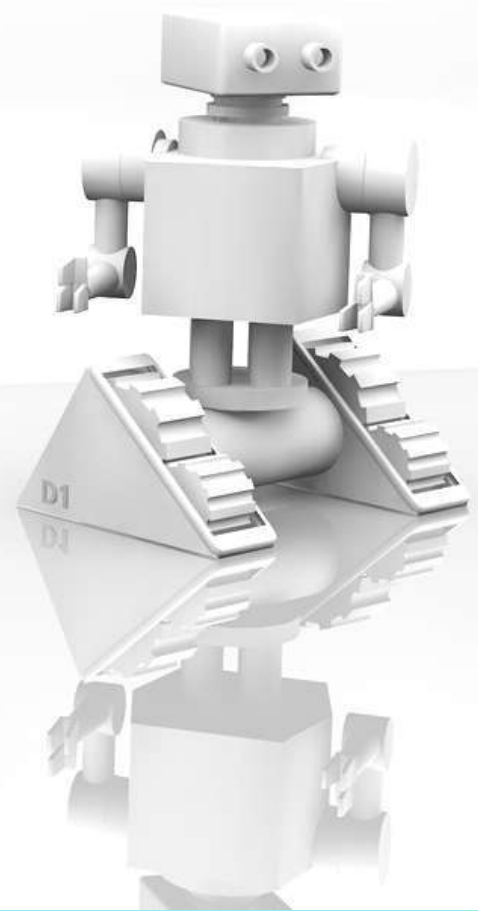
Robotics and IOT Workshop

12 Feb, 2021

Robotic automation is transforming businesses, industries, manufacturing, and reshaping the workplace globally. As the market leans towards automating more and more aspects of our life, robotics is a crucial skill to possess.

Taking that into consideration, GDSC PCCoE organized a 'Robotics and IOT workshop' on the 12th and 13th of Feb 2021. It was a 2 days workshop for anyone who wanted to explore this domain.

The participants got to learn different things like the working of microcontrollers in robots, the working of Arduino UNO boards, and robot programming. They were taught how to connect your robot to the Cloud for IoT, make home automation devices like Smart Bulb, etc., and make an IoT-controlled vehicle. An online simulator was used to enhance the learning experience. The workshop was an overall success as it helped many students delve into the domain of Robotics and IoT.



Solution Challenge

09 Mar, 2021

Solution Challenge is a hackathon/contest conducted by the Google Developer Student Clubs (GDSC) every year.

To spread the news about the Solution challenge, GDSC PCCoE conducted an awareness session on the 9th of March, 2021. The session was hosted by GDSC PCCoE Lead Suyash Sonawane. The session was for everyone who wanted to know about the Solution Challenge.

GDSC designs different sets of problems every year. In 2021, Solution Challenge's mission was to solve one or more of the United Nations 17 Sustainable Development Goals using Google technology. All these 17 Goals were conveyed to students through a video created by GDSC.



Students were acquainted with Self-placed code labs where tutorials provided by Google itself exist to help students learn how to use various products of Google and Parthean, an online support and mentorship platform.

The prize distribution system, judging criteria, the timeline of the Solution Challenge was explained in detail during the session.



ACM-W Regional Celebration

03 March, 2021

ACM-W India aims to provide social and professional support for women in computing. To do our part by celebrating women in computing, PCCoE ACM-W Student Chapter hosted the annual ACM-W Regional Event for the very first time on the 3rd of March 2020. ACM-W Pune Professional Chapter sponsored the event and it was carried out in collaboration with PCCoE ACM Student Chapter, PCCoE-R, PICT, and Cummins CoE ACM-W Student Chapters.

Women in entrepreneurship are growing around the world. This is on the agenda of most international development agencies and multilateral organizations and is a focus of many foundations and civil society organizations. To encourage young women to pursue entrepreneurship, "Innovation - A Step Towards Women Entrepreneurship" was chosen as the theme for this year.

The program started with "Saraswati Vandana" so every attendee could start their day with a positive mindset. The students were then addressed by Prof Rahul Patil followed by our respected Head of Department, Dr. K Rajeswari. A stimulating address by the Dr. N.B Chopade, marked the end of the inauguration ceremony.

Ms. Maggie Inbamuthiah, former Managing Director, AnitaB.org, was invited as the keynote speaker to the Regional Event. She delivered a very motivational speech in which, through her experience, she highlighted the importance of consistency and believing in oneself. Her sheer passion towards the field pushed all attendees to break the limits set by self-doubt.

A technical talk was then delivered by Ms. Nikita Gandhi on the topic, "Introduction to Flutter". Ms. Nikita Gandhi is the Community Manager at Google Developers and a part of the Developer Ecosystem team at Google. The attendees were provided with great insights about Flutter and what it offers. A method to bring one's ideas into reality was put forward and we



were introduced to Dart Programming Language and its basics.

After a short break, the program continued with the same zeal as Dr. Vidhi Bhanushali took the stage to share her experiences with entrepreneurship. She is the co-founder of Dental Dost and Director, Trimus Healthcare Technologies Pvt Ltd. She is also a Pierre Fauchard Award holder and an International Merit holder. During her speech, she told attendees about everyone's ability to choose their life's path and how to play their cards right to come up with the right solutions at the right time.

After another session by Ms. Sarika Panhalkar, an interactive session concluded the event by Dr. K Rajeswari and Ms. Prajakta Joshi. The winners of the blog and poster-making competitions were also announced, which had over 80 and 70 entries, respectively.

Over 200 students attended this event across India from colleges in Maharashtra, Gujrat, Kochi, and various other localities. The PCCoE ACM-W Student Chapter definitely had a major win by this successful event.



Empty Your Heart (ACMW)

20 March, 2021

In today's competitive world, no one has the time to listen to others' thoughts, and this causes problems that can even lead to anxiety and depression. Most people want to speak out and express themselves but are unable to do so because of the fear of being judged. A very common belief is, "The less you open your heart to others, the more your heart suffers."

Keeping this in mind, Empty Your Heart, an initiative taken by team PCCoE ACM-W was launched in March, 21 to help people free up their thoughts in any way possible and express themselves without being judged.

The main motto of this initiative is to listen and help students sort through their thoughts in the best way possible. Posters were distributed to make people aware of this platform.

*Members of this initiative are fellow students who have received some training but are in no way trained professionals. They do guide students to the right professionals if necessary.



The program was designed in such a way that the identity of the participant would not be disclosed. The trained team members are given the responsibility of communicating with the participants. This initiative has received great feedback.

ACM Summer School awareness session

16 May, 2021



Every year, ACM conducts Summer school, which offers various courses. On 16th May 2021, a session was conducted to spread awareness about ACM Summer school.

A brief session about ACM Summer school was held to guide participants through the website and application procedure. Students were explained how to write an impressive SOP (Statement of Purpose) by Ms. Anshu Srivastava, who had applied and attended ACM Winter school for the course Cyber Security at VIT Vellore. She also shared her experience and encouraged students to apply for ACM Summer School.

There were 4 schools offering courses in different domains. DA-IICT, Gandhinagar offered Shape

Modelling, IIT Goa offered Program Execution, IIIT Bangalore offered IoT and Embedded system (for women only), IIIT Hyderabad offered Natural language Processing and Programming language analysis & optimizations course.

The session helped participants clear their doubts and gain enough insights about the ACM Summer School.

Selected Candidates:

1. Tanmay Rastogi: High-Performance Computing
2. Amruta Aher

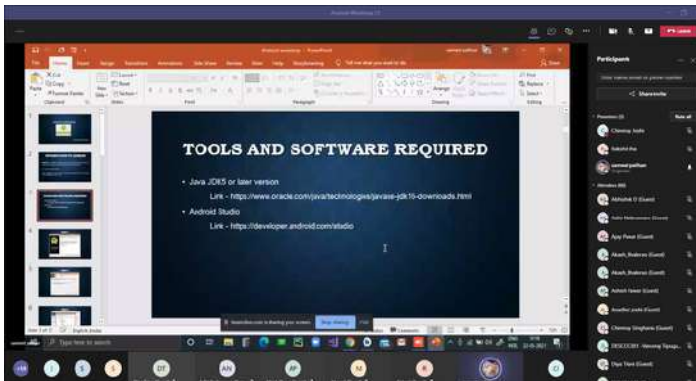


Android Workshop

22 May, 2021

The android application market is growing at a fast pace and hence, business must choose Android as their business application. Currently, the Android platform serves 3.5 billion users, which is more than any other mobile operating system

The team of CESA organized a workshop, under peer mentorship program, to teach students the basics of Android Application Development. It was a two-day workshop conducted on the 22nd and 23rd of May 2021.



A basic introduction to android, followed by in-depth knowledge of software and installation was given to the participants. Different user interfaces were discussed and implemented. “The concept of intent” was also taught. The participants got hands-on experience as they worked on a simple android app development project.

The workshop was extremely helpful and benefitted over 60 students.

World Yoga Day Celebration

21 June, 2021



During this pandemic, all we do is sit in front of the computer to work or attend lectures. But before that, we need a fresh and active mind which comes with an active and healthy body. Yoga not only helps in relaxing and bringing back the much-needed mental focus but also helps improve physical health by enhancing mobility.

June at 9:20 am, in the morning. The team had invited Divya Munot, a Yoga expert on an online platform, to demonstrate various asanas.

Keeping this in mind, PCCoE ACM Student Chapter and Team CESA had conducted an online YOGA session to celebrate International Yoga Day on 21st

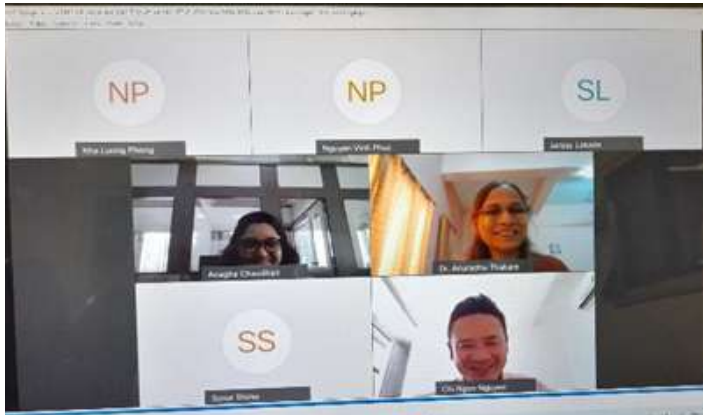
Students were advised to not have any meals before YOGA as it might get a little unsettling, and wear comfortable clothing, and were advised to practice Yoga on a Yoga mat. Needless to say, students from different years came together to celebrate the day with great zeal and enthusiasm.



International Research Symposium

28-30 June, 2021

A three day research exchange between PCCoE and CTU i.e. Can Tho University, Vietnam was conducted in the last week of June in association with PCCoE IET OnCampus. It was held to facilitate the participants and researchers working in the Agriculture and Biomedical domain with the knowledge of application development with emerging technologies.



Dr. A.D.Thakare opened the meet with the introduction of PCCoE infrastructure and laboratories with various research achievements. Further, Dr. Sanjay Lakade described about the various projects executed and undergoing in Agriculture Field. Dr. K.Rajeswari mentioned about more fruitful collaborations in the biomedical applications. Dr.N.B.Chopade also welcomed various research opportunities as a part of Indo-Vietnam Collaboration.

The outcome of event was to inculcate the innovative thinking and research based analytical abilities in participants which will eventually result into good quality products, beneficial for society and mankind in this pandemic situation.

Essentials of Cloud Computing

24-26 Aug, 2021



The three-day event consisted of a lecture on Fundamentals of Cloud Computing and Virtualization on by Prof. Ramakrishna Vadali who introduced the origins of the cloud and different cloud service models. On day 2, Dr. Ferdin Joe Joseph gave a lecture on a topic "Computing with Alibaba Cloud" wherein they introduced pupils to Cloud Computing and the benefits of Cloud etc. On the third day, we had Mr. Yogesh Parulekar lecturing on the topic "Computing with AWS Cloud Services".



Sir gave Introduction to Amazon Web Services. Characteristics of Cloud Computing.

The outcomes of this event which was organised in association with PCCoE IET OnCampus were that students were now able to design applications in a cloud environment, they were able to use cloud services, register for Alibaba Cloud Certificate for and work on giant research projects hosted by PCCoE and TNL.

Team 2021-22 Recruitment

31 Aug, 2021

TE Recruitment

CESA welcomes new talents who lead the team and the department to new heights every year. The recruitment process was conducted in a series of rounds. Considering the Covid-19 Pandemic, the recruitment process was carried out in an online mode. There were 3 rounds. In the first round, a google form was circulated, which consisted of candidates' information, 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 15-20 minutes, 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 further filtration, students were shortlisted for the third round. In the third round, the selected students appeared for an online interview with either the faculty cell heads of SDW cells or Prof. Pitale or the HoD of the Computer Department, Dr. K. Rajeswari.

The results were declared on 31st August and the new team was instated.



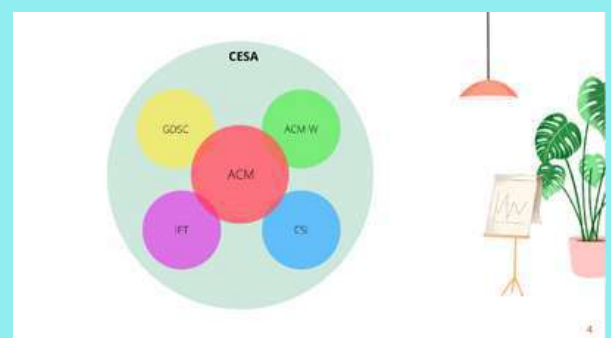
SY Recruitment

In the month of October 21, the team of CESA recruited new minds for the progress of CESA, once again, in an online mode. Before the recruitment process began, an informative session called "All About CESA" was organized for the second year students to formally introduce them to the team and its responsibilities.

In the first round, following the session, a google form was circulated on 13th October. Within a couple of days, the form had more than 140 responses. The team was thrilled with the number of responses. The TE team then scrutinized the responses and selected candidates for the second round. The recruitment panel divided themselves into 2 groups.

In the second round, the selected students appeared for an interview which was conducted by the TE team students.

Candidates with brilliant ideas and the ones clear about their vision were selected as a part of SY team. The quest of recruiting new members to the respective teams was finally done after a week-long process by team CESA.



Teacher's Day

6 Sept, 2021

On the auspicious occasion of Teacher's Day, Team CESA organised a function for the teachers of PCCoE, an event where they could relax, have fun and play games.

Since the current batches had not had a chance to interact with faculty in person, this event served as a



good ice-breaker and helped the students get to know their faculty and vice-versa.

The event comprised a few videos and two performances, A song by Mr Tejas Jadhav and a dance by Ms. Shrutika Ambre.

Needless to say, the event was thoroughly enjoyed by all faculty present and the students as well.

CESA Induction

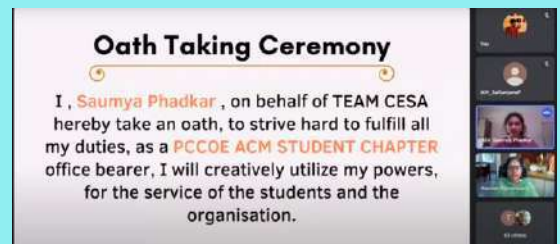
15 Sept, 2021



Engineers Day, celebrated on September 15th, recognizes and honours the achievements of the brilliant engineer Mokshagundam Visvesvaraya. We at CESA of Pimpri Chinchwad College of Engineering conducted an induction to mark the beginning of tenure, a handing down of responsibilities from the previous CESA team to the newly elected team of 2021-2022.

The event was graced with the presence of special guests, Mr. Prashant Mane who enlightened us about Blockchain and Mr. Vishal Maurya who gave an invigorating talk about Cyber Security. Dr. K Rajeswari, our HoD, moved the audience with her words of encouragement, which was followed by a file transfer video and the oath-taking ceremony.

The event came to an end with the new team officially starting their tenure with best wishes from faculty and their fellow peers.



World Environmental Health Day

21 Sept, 2021

“Let’s nurture the nature so that we can have a better future” and the PCCoE ACM student chapter on World Environmental Health Day took a step towards a better future by initiating an online tree plantation drive. Everyone was asked to plant a sapling, click a



picture of the new sapling and send it to us. This initiative was instated to encourage students to give back to Mother Nature.

A few members of the PCCoE ACM team visited the Ghoradeshwar hills to plant a 10 saplings, 6 out of which have now bloomed into little plants.

Open Source Awareness Session

28 Sept, 2021

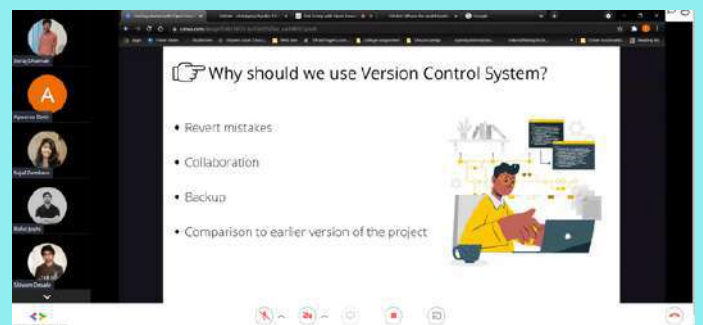
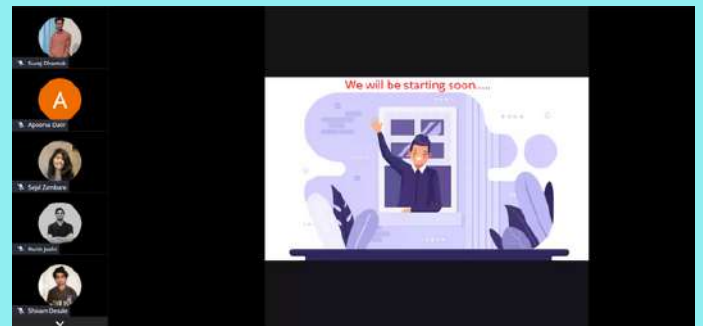


Open source is a term that originally referred to Open Source Software (OSS). Open-source software is code designed to be publicly accessible, where anyone can see, modify, and distribute the code as they see fit.

To make people aware of what an Open source is and its use, PCCoE ACM Student Chapter and Google Developer Students Club PCCoE collaborated to conduct a “Get Going with Open Source“ session on the 29th of September at 12:20 pm.

The session started with a basic introduction to open source followed by, what the Version control system is and the need for version control. The session also gave an overview of what exactly GitHub is and its basic functioning.

Overall, the session was quite fun and informative.



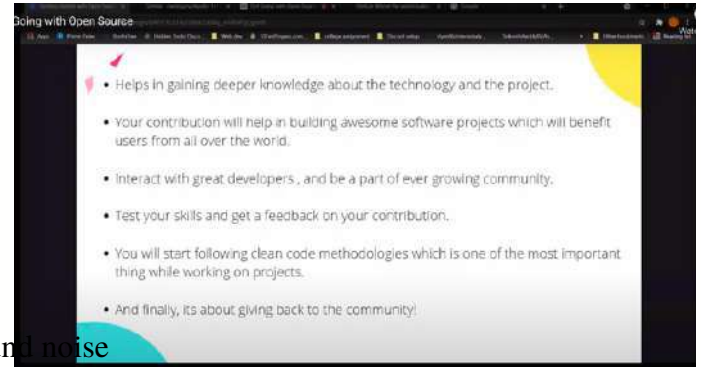
Get going with Open Source & Git init to Git push

29 Sept, Oct 2 2021



In view of the PCCoE Hactober Fest, the two sessions, "Get Going with Open Source" and "Git Init to Git Push" were organised by PCCoE ACM Student Chapter in collaboration with Google Developer Student's Club PCCoE on the 29th of September 2021 and 2nd of October 2021 respectively. The former event was led by Ms. Apoorva Datir (Webmaster at PCCoE ACM Student Chapter) and Mr. Rohit Joshi (GDSC PCCoE Lead) and the latter by Ms. Palak Gupta and Mr. Vedant Chaudhari (Webmasters at PCCoE ACM Student Chapter). The key contents of these sessions were introduction to open source, need of open source and version control system.

These two sessions helped the attendees to gain an in-depth understanding of Open Source and it's significance.



Code Olympics

23 Oct, 2021



Code Olympics is a bi-monthly coding contest organized by the Coding Cell of the PCCoE ACM Student Chapter. The contest is held on Hackerrank, an online coding platform wherein 5-6 different problem statements are given to the participants, with two hours to solve them,. The solutions are provided after the end of the contest.

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, where the importance and benefits of competitive coding were conveyed to the students.

Very active participation has been observed in Code Olympics with significant improvements in the coding skills of regular participants.



Standings

11 Oct 2021

1. Rushi Naikwadi
2. Suraj Dhamak
3. Tushar Varkhede

29 Nov 2021

1. Aditya Dubey
2. Rushi Naikwadi
3. Rishi Kale

15 Nov 2021

1. Aasim Sayyad
2. Sanjit Jha
3. Mangesh Dudhgaonkar Patil

PCCoE Hactoberfest

21 Oct, 2021

Hacktoberfest is a month-long celebration of open-source software. It happens every year in October. During this event, everyone can support open-source by contributing changes and then earn limited-edition swags. Taking inspiration from this Hacktoberfest Event, our CESA and PCCoE ACM Student Chapter in collaboration with GDSC PCCoE also hosted the PCCoE Hacktoberfest event, which lasted from October 2nd to 31st of October, with a total of more than 150 participants participating in this event. PCCoE Hacktoberfest encourages participation in the open-source community, which grows bigger every year. It is open to each and everyone in our global community. Whether you are 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 complete the challenge. After completion of the 2021 challenge, participants earn an eCertificate and the top contributors win's exciting goodies!



7 Repositories, 122 forks, 123 pull requests, and 39 issues were raised. The students who enrolled for the event had basic knowledge regarding HTML, CSS, JavaScript, UI-UX design, python, flutter, dart, etc. A JBL Quantum 100 headphone was awarded to the first winner and respectively all the exciting goodies are to be delivered to the participants, according to their ranks. It was a fun event where you get to explore open-source and also earn some exciting prizes too. Being a part of open-source grants the user an opportunity to explore and search for a project he likes and make a useful contribution to it. Because of this, you also incorporate some basic knowledge regarding the developer's skills. In view of boosting the developer's skills in the student, CESA and PCCoE ACM Student Chapter in collaboration with GDSC PCCoE has been taken a colossal step for arranging such an event.

The top 3 contributors to the PCCoE Hacktoberfest event are:

1. 1st Harsh Baheti
2. 2nd Rakshit Jha
3. 3rd Mrunali Yewale



Finance Friday

22 Oct, 2021

It is said that “Managing money is more difficult than making money”. This sounds very true as many people lack proper knowledge and planning. Certain terms and concepts related to money must be learned in order to manage money smartly and keep things under control. So, it is essential for students as well as working professionals to learn about real-world finance. With profound financial knowledge, one can handle the money they earn in an optimised manner. Irrespective of our age, profession or income we must have a clear understanding of capital management.



Therefore, to develop financial literacy and awareness among the students, CESA, PCCoE ACM Student Chapter has come up with this initiative called ‘Finance Friday’ which is a series of posts that promotes financial literacy in students. Every other Friday one post is made on the official Instagram page of PCCoE ACM Student Chapter. These posts cover various topics like Taxes, Stocks, Insurance, Mutual Funds, Assets and Liabilities, How to manage money effectively and many more.

However, these posts are for educational purpose only. We do not claim to be certified financial advisors.





ACM Winter School Awareness Session

30 Oct, 2021

The ACM Winter School is held annually for students all over India, which offers in-depth knowledge and exposure to research in advanced technological areas.

On October 30, 2021, a brief session was held to raise awareness of ACM INDIA WINTER SCHOOL 2022. Ms. Anshu Srivastava, a current final year student was invited as the guest speaker who had applied and attended ACM Winter school for the course Cyber Security at VIT Vellore, graced the occasion with her presence. She provided guidance to the attendees and showed them how to navigate the website. She told students about the application procedure and directed students to resources to help them write an effective Statement of Purpose. The personal experience of a super-senior served as a source of inspiration to juniors. Various schools provided four informative courses. CMI and IIT Madras offered Algorithms and Lower Bounds (in collaboration with CMI-NASI), IIT Madras offered Quantum



Computing, IIT Bhilai offered Security, Privacy, and Trust in Cyberspace (for women only), and IIT Kanpur offered Computer System Design, Implementation, and Verification.

This session undoubtedly provided a beneficial opportunity for learning something of high quality and assisting students in developing a sufficient understanding of the ACM Winter School.

Selected Candidates:

- | | | |
|--------------------------|--|--|
| 1. Saumya Parag Phadkar | | <i>Quantum Computing</i> |
| 2. Pradnya Ramesh Thakur | | |
| 3. Amisha Sunil Sherekar | | <i>Security, Privacy and Trust in Cyberspace</i> |
| 4. Rutuja Rajesh Patil | | |
| 5. Arya Jagtap | | |

ACM Summit

13 Nov, 2021



The ACM Summit aims to bring together different ACM Student Chapters to share their journeys, expand their knowledge, and provide participants with the opportunity to listen to technology stalwarts as well as industry experts.

Chitkara ACM Student Chapter, Chitkara University, hosted the ACM Student Chapter Summit 2021 via virtual mode on November 13, 2021, where the top three ACM chapters shared their best practices for serving society. The keynote speaker was Prof. Yogesh Simmhan of IISc, Bangalore. He gave a very informative speech on Distributed Analytics on Edge and Cloud Resources, providing attendees with a thorough introduction of Machine Learning (ML) and Deep Learning (DL). The second keynote speaker, Ms. Shalini Kapoor, IBM's AI Director, spoke about Climate Technologies and a Sustainable Future.



Soham Kulkarni, vice president of CESA, represented the PCCoE ACM chapter and exhibited the best practices followed by it ranging from a training session at Gurukulam orphanage, flood relief donation drive, hour of code, eminent speaker program. He also discussed PCCoE ACM student chapter's accomplishments over the last few years and interacted with ACM India council members.

The session then moved on to a discussion amongst a panel of experts out of which Prof. Shitalkumar Rawandale, Dean, Industry-Institute Interaction, PCET, Pune, provided attendees with advice on how to improve their skills and profile to land dream jobs. This summit came to an end with a virtual cultural performance by the Chitkara ACM Student Chapter.



Higher Studies Bootcamp

17 Nov, 2021

Thousands of aspirants travel around the world to finish their higher education. Students from various backgrounds and educational interests have primarily begun to consider higher education in India and abroad. There are still pre-established norms that we must meet to be admitted to a university. The SAT, MCAT, LSAT, GMAT, GRE, IELTS, and TOEFL are some of the most popular and important international entrance exams. These exams are difficult to pass and necessitate extensive study and counselling.

Taking this into consideration, the Higher Studies Cell of PCCOE ACM Student Chapter and CESA, organized a Higher Studies Bootcamp event. This session was led by PCCoE alumni Mr. Chinmay Joshi, volunteering for India's HCI 2021 conference, and Mr. Ashley George, travelling to Canada to pursue a Master's in Data Analytics where they explained the

strategies and the different stages of the enrolment procedure for these examinations. They also shared their experiences and advised attendees on the amount of preparation required to qualify for these examinations. Mr. Ashley George also shared his story and the steps involved in applying for a Master's degree in Canada.

This session undoubtedly assisted the students in gaining a clear perspective on these examinations and learning about the various options available for their subsequent studies.



Decoding Android

18 Nov, 2021

In the last ten years, Android has effectively become the world's most popular operating system by a variety of metrics. We know that Android & iOS are two mobile app giants dominating the global smartphone market. However, Android tops the list with 74.43% of total mobile OS market share and above 52 billion app downloads today. There are numerous job opportunities in this field and to make the students aware, GDSC conducted this webinar on 18th December 2021 at 5 PM. This webinar was conducted on Bevy and over 60 people joined. It was an informative session that covered all the major topics related to Android development. In a nutshell, it was a complete roadmap to Android development from beginner to advanced level.



Insights into GSoC and Placement Preparation

30 Nov, 2021

The “Insights into GSoC and placement Preparation” session was conducted on the 30th of November 2021 in online mode. The lead speaker for this event was Mr. Siddharth Jain (contributor in DBpedia in GSoC 2021) and Mr. Shrinivas Patil (upcoming software engineer at Accolite). The main motive of this event was to guide students regarding placement preparation drives and to give some insights into GSoC. The overall attendance for the event was 259 students.

The first speaker, Mr. Shrinivas gave us a brief about how different companies recruit their employees and also made everyone aware of the pillars of placement preparation. Profile building, HR interview, technical interview, coding round, problem-solving were some of the highlighted points.



Well, the second half of the session was a deep dive into the insights of the GSoC. Mr. Siddharth gave brief info about, what is open source, and how you can contribute to the GSoC by delivering his personal experience as well. The main objective of this session was, how to get started into GSoC and some basic information regarding the timeline of the GSoC. Last but not the least, at the end there was also a Q & A session where all doubts and the questions of the students were addressed. Safe to say, this session was a great success!

Thursday Tycoon

2 Dec, 2021



“The best way to predict the future is to create it.”

- Peter Drucker

This especially applies to students with minds full of ideas. Their creativity can change the face of any industry. To inspire students and educate them as to how to go about a start-up, a weekly series was started on the official Instagram page of the PCCoE ACM Student Chapter on 2nd of December, 2021.

In these posts, a different Indian start-up is covered every Thursday and the strategy followed by them is discussed. The posts create awareness about the potential of start-ups in India and encourage students to come up with an idea and see it through. Each post is designed so as to immerse and motivate all readers and ignite the fire of making their own future.



Domain Intro sessions

7-8 Dec, 2021

Team CESA and PCCoE ACM Student Chapter organized an informative session on prevailing and trending domains in the Tech industry exclusively for the Second Year students for 2 days, on 7th and 8th December. With so many new domains popping up, it might be confusing at times for second-year students to select the domain of their choice. So, this session introduced students to various domains like Cloud Computing, Web Development, Cyber Security, IoT, Android Development, Web Development, Data Science, and AI/ML which gave practical insights about how to select the domain of choice.

1] Cyber Security

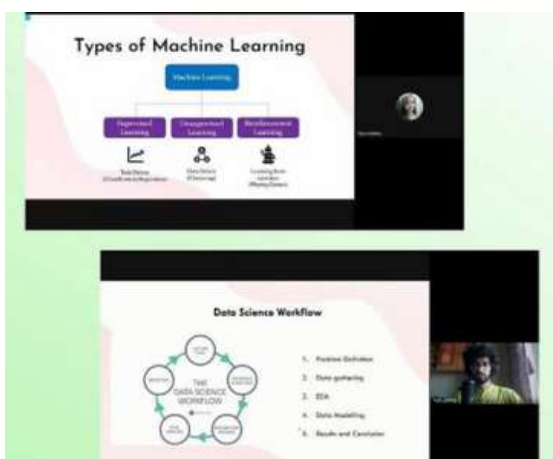
To help students learn about the field of cybersecurity and why it is necessary in today's world (digital age) also to kindle the interest of the undergraduates in the field of cybersecurity and motivate them to choose it as their profession, paving the way for them to break into the area of IT security.

2] Cloud computing

This session gave insights into the basics of cloud computing and answered some sought-after questions like why one should use cloud computing over traditional computing by addressing the former's perks.

3] IoT

To get to know the domain of IoT better, the seniors introduced the SY students to the basics of IoT, how it is making human life better by addressing its applications.



4] Data Science

The event covered data science tools and technology, the life cycle of data science, why data science is the most in-demand job today, several career paths through data science, and average data scientist salaries.

5] Machine Learning

The purpose of this session was to provide fundamental machine learning information, its prerequisites, its application, and scope in the industry as well as average machine learning engineer remuneration

6] Web Development

The session included an introduction to the basic terminologies of the web domain and a brief intro to the renowned libraries of frontend and backend. cleared some common misconceptions amongst students and discussed the research fields and scope in the web domain.

7] Android Development

This session gave insights into the fundamentals of Android Development, its evolution. Provided details about its prerequisites and programming languages required for the same.

Clothes Donation Drive

7 - 14 Dec, 2021

Winter this year was not the best for people who lost their incomes due to COVID-19 or people living in disaster struck areas. To help our community, Team CESA organized a Donation Drive where students donated old, especially warm clothes. This was a week-long drive in which a box was set up near Gate-1 of PCCoE Campus students living in the locality were encouraged to contribute. These clothes were going to be donated to Goonj Foundation, an organisation which works for the development of the people living in rural areas and makes sure clothes and other donations reach the right people.

A special session was also held on 10th of December in which a representative from the Goonj Foundation spoke to the students about how the donated clothes



are processed and where their donations will go. This session made sure that the process was completely transparent and invoked more response from students.

We ended up collected over 150 items of clothing which were then dropped off for donation at a Goonj Dropping Centre. Donated clothes will soon be delivered to rural areas in and around Maharashtra, making this initiative a major success.

Hour of Code

9 Dec, 2021

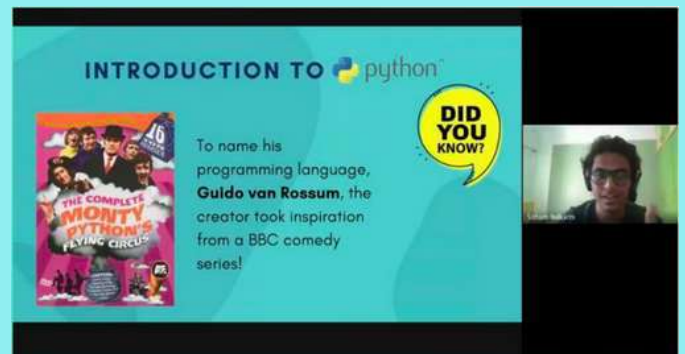
The Hour of Code started as a one-hour introduction to computer science, designed to demystify “code”, to show that anybody can learn the basics, and to broaden participation in the field of computer science. It has since become a worldwide effort to celebrate computer science, starting with 1 hour of coding activities. This year too the Members of ACM and ACM-W Student Chapter conducted these sessions in different schools. The schools in which the sessions were conducted are:

ACM

- 1.S B Patil School [9/12/21]
- 2.GG International School [10/12/21]
- 3.City Pride School [10/12/21]
- 4.Subodh High School [11/12/21]

ACM-W

- 1.Purushottam School [9 /12/21]
- 2.ZP School [10/12/21]
- 3.Shree Chatrapati Shivaji Vidhalaya [10/12/21]



In these sessions, the team interacted with students of class 5th to class 9th. The Team talked about why programming is important and how code works, what is a programming language. Then the team went a little deeper and talked about some programming languages like Python and Web Development. The sessions ended with answering the queries of the students.

These sessions were highly interactive and made the students more curious about coding. The Team sincerely Thanked ACM for supporting this initiative. It was quite a learning experience for the team.

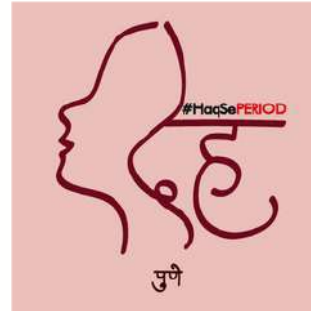
Menstruation and You

10 Dec, 2021

Menstrual awareness is a relatively new phenomenon on a national scale and though the world is gradually removing the social stigma associated with menstruation, the word "period" still remains a taboo in most societies.

HaqSePERIOD Deha is the Pune chapter of HaqSePeriod, a social campaign initiated by two prominent intimate hygiene brands, Pee Safe and Raho Safe. In collaboration with HaqSePeriod, we organized a session on menstrual hygiene with the purpose to debunk the myths and taboos around menstruation and periods. The conversation ranged from the fundamental science behind the menstrual cycle to the safeguards that today's generation must take to combat the surge in the number of period-related issues, promoting awareness and including non-menstruators in the conversation.

Overall, the initiative was a success in terms of transforming social norms surrounding menstrual hygiene and reducing period stigma.



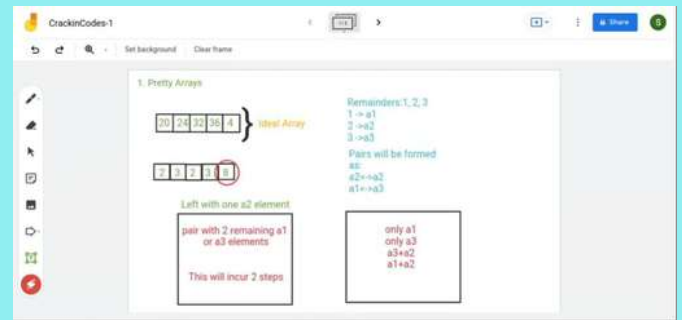
CrackinCodes- Coding Competition

10 Dec, 2021



CrackinCodes - Coding Competition was an online programming competition hosted by GDSC on December 10, in which participants were given a set of questions to answer in a certain amount of time. They were tested on abilities such as speed, agility, and so on. Participating in this event was a fantastic experience for all coders. There were about 100 participants.

This was done through Google Meet. Creating the question, conducting the event, and organizing the entire event was a fantastic experience for all of us.



Leaderboard		Filter By		Type username to compare				
Rank	Team	Solved	Time	A	B	C	D	E
1	nulsunom2001	5	209	1:23:46 (+1)	4:02:11 (+5)	5:04:34 (+5)	2:04:41 (+5)	1:27:41 (+5)
2	pranadhe08	5	217	1:00:02 (+1)	2:00:02 (+5)	4:02:11 (+5)	1:27:26 (+5)	1:27:26 (+5)
3	sohobdane	5	256	1:23:52 (+5)	1:28:54 (+5)	5:04:34 (+5)	1:54:17 (+5)	1:27:46 (+5)
4	vinaykumar1234	5	258	1:04:06 (+5)	2:22:46 (+5)	4:04:03 (+5)	1:04:22 (+5)	1:22:14 (+5)
5	pranshu	5	284	1:03:56 (+1)	5:12:55 (+5)	5:00:08 (+5)	1:27:14 (+5)	1:04:56 (+5)
6	tanvi_11007	5	287	4:45:09 (+1)	2:00:11 (+5)	1:27:11 (+5)	1:04:17 (+5)	1:03:35 (+5)



TOYCATHON 2021

SONCHIDIYA

THE TEAM

Mr. Kapil Tajane, Palak Gupta,
Shreyas Dungarwal, Sharvi Ghogale

GENERAL OVERVIEW

Sonchidiya is a digital, online board game based on Indian history and culture. Just like any traditional board game the players take turns to roll the dice in order to move their pawns around the board. Before a pawn can advance, the player has to answer a quiz. Answering it correctly takes you closer to the finish line whereas every wrong attempt results in a penalty. The player who reaches the end of the track first wins the game.

What motivated you to participate in Toycathon?

Toycathon had a very intriguing theme. The idea of building a digital toy to reflect India's culture and diversity was in itself very unique. It seemed to be a great way to widen our perspective and put our skills to test. We saw this as a great opportunity to innovate things and build something completely different. Also, we were exhilarated to get a chance to represent our college at the national level and thus decided to give it a try!

What was the motivation to work on this project?

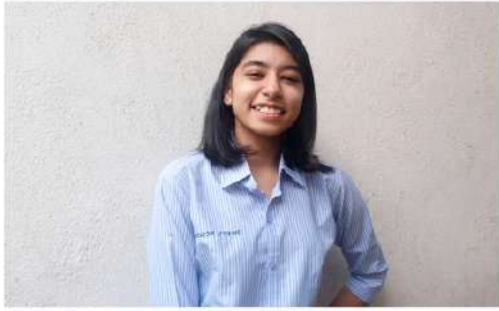
We wanted to build a game that would help children gain knowledge while also having fun. As children nowadays spend most of their time in front of screens, we decided to build something that would be immersive as well as educational. Since the game would be a multiplayer online game, it would help build a competitive spirit in children while also imparting knowledge.

Did you get this idea before you register for Toycathon or did you enroll yourselves first and then brainstormed about the idea?

Since there were a lot of different themes to choose from, we decided to brainstorm various ideas and solutions only after registering in the hackathon.

What technologies did you use for the implementation?

We used the web dev technologies HTML, CSS, and JavaScript for it. But as the project advances, we are willing to upgrade to React.js and Node.js to improve the efficiency.



Now that you are done with Toycathon, do you feel like changing something in the game?

There are definitely a lot of new features that we would like to introduce. For example, currently, the game supports only 2 players at a time. We would like to upgrade it to permit more users. Also, as of now the game only has one theme and we would like to introduce more themes to make it more fun. We are also looking forward to creating a mobile-compatible version of the game.

How was the team and how did you divide the workload among the teammates?

We had already been working together in the past so we didn't face any problems within the team and the team was quite smooth.

We split the work into 3 main sections. Each member was given one of these 3 tasks so they could channel their focus completely towards it while also helping the other team members as and when required.

How did you come up with the name "SonchiDiya"?

Since our game revolves around the history and culture of India and in ancient times India was called Sonchidiya (The Golden Bird), we concluded this would be the most suitable name for our game.

Can you describe this hackathon?

Toycathon was a hackathon in which the participants had to design a toy or a game to introduce the rich heritage, culture, and diversity of India to the modern world. The hackathon consisted of different rounds and the teams were given a sufficient time frame to think and work on their unique ideas and develop a working prototype that was judged on the basis of various parameters in the subsequent rounds. The teams were not only given feedback but also had to make various changes in their prototype based on the inputs received by the judges during the challenge rounds.

What difficulties did you face while developing the project?

Bugs! After adding any new feature to the game the testing phase would take a lot of time as there was always some stubborn piece of code that took forever to debug. Also, the teams were given a very limited amount of time frame by the judges to make changes and introduce new features, and hence we found it a little challenging but fun nonetheless.

What are the long-term lessons that you learned from this experience?

It was a great learning experience for all of us. We gained a lot of insights into how things work in the industry and it also taught us a lot about putting our ideas forward convincingly. We also got a chance to explore a variety of new technologies and skills. We learned a lot about working in a team, managing time and pressure.





MASK DETECTION AND DISTANCE CALCULATION

THE TEAM

Dr. Swati Shinde, Pragati Janjal, Gauri Pawar, Rutuje Rashinkar, Swapnil Rokade

GENERAL OVERVIEW

The software essentially detects whether or not a person is wearing their mask. It was made in line with the current pandemic situation to make verifying mask-wearers easier. The project can be divided into three modules, the first being detection of masks. The second module of the software comprises a pre-trained model which identifies a person not wearing a mask, whereas the third module of the software verifies if the people in the camera's frame used are following the government-provided guidelines for social distancing or not. We combined these three models to produce a brand new software.

What was the motivation to work on this project?

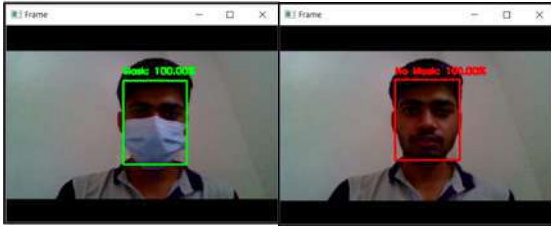
Our primary motivation was the current pandemic situation. Conduct or norms followed in society have changed significantly since the pandemic started in March, last year. Masks have become an essential part of our attire and social distancing, a non-negotiable rule. As our world is reopening, it is becoming increasingly prominent that not many people take these regulations seriously and as offices and schools reopen, manual detection of masks becomes too tedious and, frankly, not possible. To ensure everyone's safety, this software not only automates the entire process of detection of masks but also identifies unmasked people.

What other potential applications does this project have?

Apart from detection of masks in public places such as schools and offices and, with expanded range and better equipment, roads, bus stops, this project has added applications as well. One of these is the facial recognition feature of unmasked people. This will come in handy for the penalization of people refusing to wear masks or tracing back a Corona-positive case. To aid with this, the software also maintains a database in which details of unmasked people are saved, which in practical usage can be acquired by linking Aadhaar Cards and other government-issued identity documents.



The procedure followed / Technologies used:



Was there a paper published for this project?

We have submitted our paper to ICCIDM, ICSPN and I3CS journals/conferences. It is currently under review and hopefully will be published soon! We also filed a patent for our concept.

Now that you have completed the project and know more about the technologies used, what would you change in the project to improve it or make it more accessible for general crowd?

We haven't given it much thought, but off the top of my head, the social distancing module could be improved. The YOLOv3 model only measures 2 dimensional distance, which in real time applications will not be very helpful. Also the entire project was created using a webcam of a laptop. Having access to better hardware would definitely help. Another aspect that would cause an issue would be training the facial recognition model. For it to recognise our faces, we had to feed it about 1000 images of each of us. Training a model to use in real life, on a stop light or other public places would be quite a task.

In the initial stages of the planning, we decided on a CNN algorithm for mask detection, facial recognition and social distance verification, a Haar Cascade and LBPH algorithm was also studied for facial recognition. For the object detection portion of this, architectures used were MobileNet for Mask Detection, FaceNet for Face Detection and YOLOv3 model for Distance Measurement.

Module 1: Face Mask Detection and Face Recognition

The dataset we used for this module was about a thousand pictures of masked people and another thousand of unmasked people, from various angles, distances, etc. MobileNet architecture was used for processing and training the data after which it was fed to the FaceNet model and a bounding box was added to the output image frame as an indication of whether they are wearing a mask. Image frames from a video feed (here we used a laptop webcam) were isolated and tested. The output video has a red bounded box around the face of an unmasked person, whereas a masked person had a green box around their face.

For Facial Recognition, we took our own images to train the model in such a way that it runs facial recognition after detecting that no mask is present on one's face. A Haar cascade algorithm is used to identify the person from an image frame and their name is displayed on the border of the bounding box.

Module 2: Social Distance Detection

YOLOv3 (You Only Look Once) is a real-time object detection algorithm that identifies specific objects in videos, live feeds, or images. YOLO uses features learned by a deep convolutional neural network to detect an object. We used this pre-trained model for the detection of 80 different classes of objects with accuracy and speed.

Data from the following 3 files is used in this module:

1. 'yolov3.weights' file contains pre-trained weights of the neural network.
2. 'yolov3.cfg' contains neural network model architecture.
3. 'coco.names' has the list of 80 object classes that the model will be able to detect.

The calculation of distance between two is calculated using the Euclidean distance formula.

In the output frames, people following social distancing were bounded by a green box and those between whom the distance is below threshold value were bounded by a red box.

Module 3: Contact Tracing

When a person is detected not wearing a mask or not following social distancing, the system sends them an email regarding further actions to be taken such as penalisation.

These three modules combine to make our entire project.



DETECTION AND CLASSIFICATION OF COVID 19 AND OTHER LUNG DISEASES USING DEEP LEARNING

THE TEAM

Prof. B Mahalaxmi, Mayuresh Deshmukh, Utkarsh Dhavale, Ashitosh Dhone, Pratik Hedge

GENERAL OVERVIEW

This software is capable of differentiating between the lung X-Rays of Pneumonia, Tuberculosis, and Covid-19 patient using Deep Learning.

It uses the VGG 16 model to predict the disease that the patient has.

We tested the VGG 16, ResNet 50, and Inception V3 models, and out of these, VGG 16 was the most accurate.

What was the motivation to work on this project?

We did this a year ago when covid had begun spreading. We noticed that there was a large time delay between the RT-PCR test and the results so we decided to do something. We then tried deep learning technology and noticed that the time taken by this method was very less as compared to RT-PCR and the accuracy was high. So, we decided to build this.

What technologies did you use?

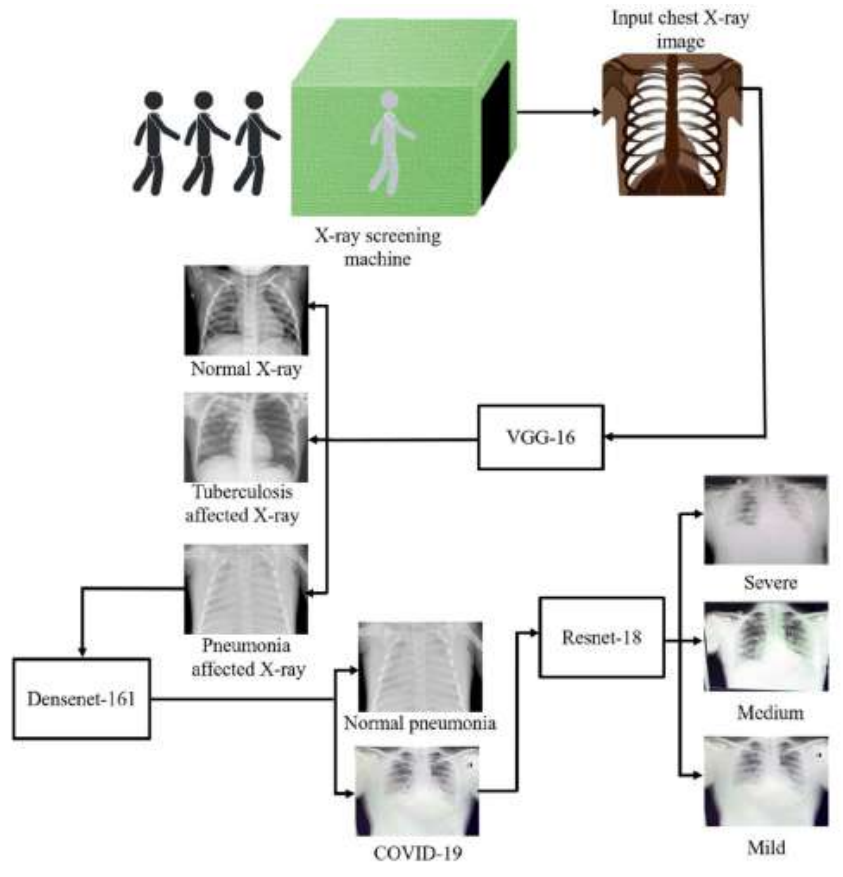
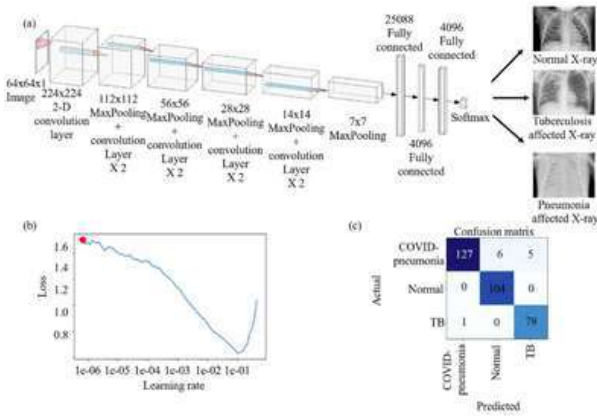
For the deep learning model, we used VGG 16, ResNet 50, and Inception V3, for the front end, we used Bootstrap and for the backend, we used the Flask framework.

What dataset did you use?

We used the Kaggle dataset and the Radiography dataset. The dataset consists of 1000 images of each class.

What improvements would you like to make?

We want to change the input to CT scan images from X-rays images as it provides higher accuracy and the project is on a smaller scale so we also want to take it to a larger scale but for this, we need a larger dataset as the current dataset is very small. We have thought about the government dataset but we will need government approval to use that dataset

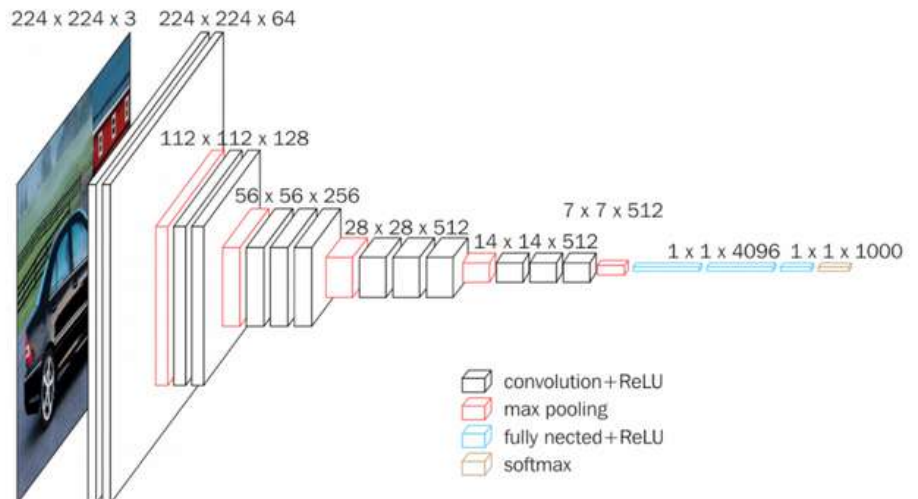


How was the team and how did you divide the work?

The team was very supportive and cooperative. We used to have daily calls to decide and take feedback on our work. The workload was divided evenly among the team members. One was responsible for VGG 16 and ResNet 50 Model Training, one for Inception V3 Model Training and Optimization of all the models, and the other two were responsible for the frontend and backend of the website which used bootstrap and flask.

What difficulties did you face?

For Deep learning projects, we need a powerful GPU but we didn't have it and the college also couldn't provide it because of covid. So we had to use Google collab to access the free GPUs. And because of the pandemic, we all were away from each other and so it was a little difficult to keep in touch but still, we managed to do it and completed the project.



What did you learn from this project?

We learned Deep learning, Frontend, and Backend from scratch and also the mathematical aspects of the Deep Learning algorithms. The Coursera subscription that our college provided helped a lot.



AFCM-LSMA: A model for COVID-19



Detection using X-Ray Images

Featuring Dr. Anuradha Thakare



Ovee Manolkar

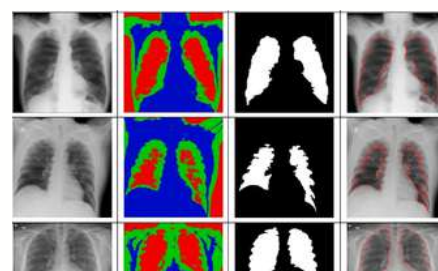
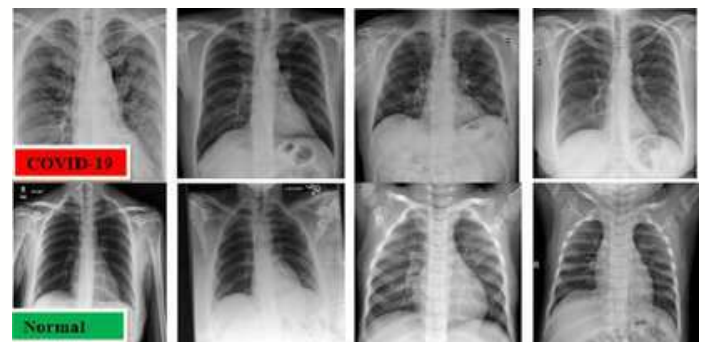
With the entire world at a standstill because of the COVID-19, the only hopes of humankind came from the medical sciences. In the initial months of the pandemic, it was not only difficult for the scientists to find the proper cures and vaccination, but detection of COVID was also a significant challenge. There weren't enough medical kits and effective tools for detection and diagnosis of the disease. This created several problems, specifically in the developing and under-developed countries across the world, as this catalyzed the spread of the virus.

Scientists and researchers from all the fields came together to come up with a viable way to identify the infected patients early on using image processing and artificial intelligence. A lot of work was done in this field. Dr. Anuradha Thakare along with her team, Ahmed M. Anter, Diego Oliva, and Zhiguo Zhang, proposed a new intelligent model based on the Lévy slime mould algorithm and adaptive fuzzy C-means for identification of COVID-19 infection from chest X-ray images in their paper.

This model proposes combining the strength of different techniques. It works in five phases; image pre-processing, segmentation, feature extraction, feature selection, and classification. The whole model, known as AFCM-LSMA, is based on adaptive-FCM(Fuzzy C-Means) and Lévy-SMA (Slime Mould Algorithm).

The slime mould optimization algorithm is integrated with Lévy motion to select the significant features from the high dimensional feature fusion matrix. This model is assessed using different assessment criteria to compare its efficiency with that of popular meta-heuristic optimization algorithms and various chaotic maps.

This model provides confidence for further research as the model is adaptive in nature, which helps it deal with the newer mutations of the virus. It provides a pretty accurate method to diagnose COVID-19 using a simple X-ray scan. This will be beneficial not only for the diagnosis of COVID-19, but also for other diseases like bacterial and viral pneumonia. The proposed method understands and works on all the potential future developments, and hence is a huge accomplishment.



Technology Shaping The World!

Nikita Bhoire

Everything was going okay with my daily routines. The queue of people at local stations, children going to school, colleges full of students. One night when we roommates were talking, we came across news about the spread of a virus in Wuhan & we got worried. What would happen if the virus comes to our country? How scary it all was! Just after a few days, the cases started increasing, schools got closed, shops shut down, all hostellers returned to their homes assuming that it was a one or two-month holiday. But who knew, the virus was so powerful & dangerous that it restricted us to live within 4 walls, not for 3, not for 6 but around 18 months and there is still no idea when everything will return to normal. This biggest accelerator is the 'Covid-19 pandemic'.

As it is said, "Every setback is a setup for a comeback because God wants to bring you out better than you were before." With this positive approach, the era of technology and digitization has started with a new journey and is shaping the world, where online meetings have become classrooms, online examination portals have become examination centers, and modern hand-shaking is being replaced by Indian Namaste culture.

During this time technologies are playing a crucial role in keeping our societies functional in the time of lockdown and quarantine. While talking about technologies, some of the key questions are:

- Which technologies are used during this period?
- By whom is the technology getting used?
- How are these technologies being used?
- What are the impacts of using these technologies?

These technology trends include online shopping, digital payments, distance learning, telehealth, online entertainment, etc. Along with that, big data and AI helped for tracking the spread of infection, tools such as migration apps & social media helped to collect the location of people, machine learning models were developed to forecast regional transmission.

The Work from home (WFH) economy is one of the biggest transformation stories of the 21st century with a direct impact on almost half of the world's population.

Various countries used technologies in their own way. Swedish and USA-based healthcare organizations had developed a platform for health workers for planning and tracking of spread. Germany has launched a smartwatch application while other countries like India with 'Aarogya setu app', Australia with 'COVIDsafe app' & China with 'QR scan code' used for the purpose of contact tracing.

With technology, the sky really is the limit. Every new technological advance has the potential to improve the way we respond and fight this coronavirus outbreak.

The invaluable benefits of this digitization will remain long even after this pandemic is over from clinic care, education, and research standpoint. During this time of fear and uncertainty, the willingness to rapidly adopt technology has truly been our life. No doubt post covid life will be different, but it taught every person to go with change beyond their comfort zone...because **change is the only constant!**

How technology changed the way of Teaching in 'Pandemic Year'

NEVER STOP LEARNING

Atharv V Yadav

The Beginning of Online ERA:

Who would've thought that technology would be so prevalent in the classroom today? If we look back to our school days, many of us didn't even own a smartphone, but today a 6-year-old has a computer and is using it every day to participate in the classroom.

The WHO in March 2020, has declared the COVID-19 a global pandemic & education across the globe has transferred to the online mode. It has sped up the adoption of digital technologies for several years.

Role of Technology in E-learning:

E-learning was underutilized in the past. However, the current crisis of the pandemic forced the entire world to rely on it, and technology helped us a lot during this online learning. In the absence of the correct technology, the education system would have come to a jeering halt.

The shift from offline to online being a very unplanned move, many of the students experienced challenges. Students from rural areas struggled due to insufficient bandwidth, while some struggled with a lack of good devices. Now that students are more comfortable with this shift, there are a few more points to be discussed:

▪ Is the Future of Education Online?

Online education is cost-effective & can be highly customized to meet the specific needs of students. The major benefit is the accessibility of time and place. Hence, Many EdTech start-ups also experienced massive growth during this time.

The National Education Policy 2020 spoke about the massive role of education in digital transformation.

▪ The Challenges!

Important challenges which need to be overcome are:

1. Technical Issues: Not access to reliable internet or technology.
2. Digital Literacy: Difficulties while delivering content online because of no earlier interaction with the digital system and lack of knowledge.
3. No Practical Training: Augmented and Virtual Reality can help with this difficulty over the next few years.

▪ Effectiveness of Online Education

Research shows students being able to learn faster online with increased retention. This is because students can learn at their own pace, going back and re-reading, skipping, or accelerating through concepts as they choose & have more control over the learning process.

The Rise of the 'EdTech' Sector during a pandemic:

Educational technology (EdTech) is an emerging sector that has received a significant boost ever since the COVID pandemic has started.

According to a survey of IVCA, India is home to the second-highest number of EdTech companies. BYJU'S is leading the way with the highest amount of venture capital raised. Unacademy, in August 2021, raised \$440 million in funding. All of this highlights the potential of EdTech in the future.

While some fear that emerging technologies would push education & teachers on the back foot and tech would become more important, it is in no way replacing the touch, feel, and seeing each other in person. George Couros, the leading educator said, "*Technology will never replace great teachers, but in the hands of great teachers, it's transformational.*"

THE PANDEMIC AND ONLINE SHOPPING



Priyanka Sunil Kizhekethottam

The COVID-19 crisis has affected people differently. In uncertain, risky situations over which we have no control, we tend to try anything we can to feel like we are in control, a response known as retail therapy where we try to cope with our concerns by indulging in retail purchases. Online shopping has reduced hoarding and stockpiling and only buys in bulk when necessary. Most consumers buy essential products online, such as food and medicine.

The checkout queue has been reduced as a result of online shopping. Customers are alerted when the eagerly awaited products return. Combined with its ability to reduce crowding in shopping centers, it is the ideal solution. The hassle of looking for receipts is gone hence it is easier to return goods.

As a society, we are largely coming to grips with the reality that we live in an interconnected world, and it has become increasingly difficult to temporarily separate ourselves from others. The risk of spreading is likely to be reduced if you continue to shop online in the future and focus on essentials.

Items shipped over a long period of time, at ambient temperatures, will reduce the risk of spreading. Sanitizing the package after it has been received will also help reduce the spread of the virus. This would seem to indicate there will be an increase in online shopping as people turn to e-commerce to purchase goods and services normally purchased in stores.

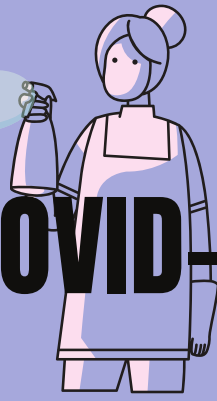
For companies that put e-commerce at the core of their business strategies, the post-COVID-19 era offers much more opportunity for growth.

Electronics, pharmaceuticals, groceries, and consumer goods, which are more used to physical shopping, have enormous potential to expand the business and generate greater profits as a result of costs for store maintenance being reduced.

Traveling space is now funded by e-commerce profits, which is quite mind-boggling.



The Silver Lining of COVID-19 in India



Janhavi Abhay Pimplikar

It's been a year and a half since COVID-19 broke out, leaving many people terrified all around the world. We witnessed the very first lockdown of the millennium, and with the news spreading about the number of cases and deaths inflating each day, everything seems quite unpredictable at the moment. In our reality, normalcy may feel like a distant dream.

The COVID-19 pandemic has brought a sudden change in our lives for sure, most of which are undesirable. However, as they say, 'Every dark cloud has a silver lining', this event too has its positives. Speaking about India specifically, since health and hygiene have always been prevalent issues here, people have started to pay more attention to keeping clean and healthy.

Another factor that will facilitate healthy living is the availability of clean air to breathe in. Because of the imposed lockdowns, there has been a rise in the air quality index amongst heavily polluted cities in India. For example, according to sources, Delhi is witnessing the lowest air pollution levels in the past ten years. Cities such as Mumbai and Kolkata have seen this trend as well*

The pandemic has also led to an increase in the frequency of mobile phone and computer usage for activities like online classes, remote work, or financial transactions. This usage will facilitate digital literacy amongst a larger population. Digital Literacy is gaining importance as our world is technologically revolutionizing itself. For example, online payment apps and net banking activities have helped Digital India's campaign, haven't they?

With the ongoing vaccination drive, India has also exported its patented vaccines to over 70 countries worldwide. This initiative will raise India's competency to become a potent vaccine distributor in the future. Also, India may be able to improve diplomatic relations with the countries where the vaccines were shipped.

When all seems negative in a phase, it may be quite challenging to uncover its positive aspects. However, it's a matter of perspective, and we can always learn from our past habits and try to change the way we see and do things, can't we?

*References: <http://www.businessworld.in/article/6-Ways-The-Covid-19-Is-Making-A-Positive-Impact/12-05-2020-191781/>

Pandemic As A Catalyst For Indian Tech Startups

Amisha Sherekar

In the early months of 2020, the outbreak of the covid-19 pandemic paved the way for the unprecedented economic lockdown. The well-established startups and companies were languishing. Their economy was deteriorating gradually. But some technical startups used this pandemic as a catalyst and reached a height that would not be possible otherwise. The pandemic made the adoption of online technology crucial. This year, Indian startups have so far raised \$20 billion in funding and saw 20 new unicorns (privately owned startups with a valuation of over \$1 billion).

Edtech was one of the sectors that were eminently profited by the lockdown. India's ed-tech industry is the second biggest in the world. There was an increase of 30% in time spent on education apps during the initial phase of lockdown. The ed-tech startups are helping learners understand topics better through Virtual Reality, Augmented Reality, and Mixed Reality. There are about 4500 ed-tech startups currently operating in India. The decently established ed-tech startups like BYJU'S and Unacademy saw a massive boost within this pandemic, creating them one of the first unicorn startups in this area. Moreover, startups like Board infinity, Vedantu, Toppr, Great Learning emerged to a great value. The market size of the Edtech industry is estimated to reach USD 3.2 billion by 2022. It will be no surprise if India becomes the biggest online education consumer in a few years.

Given the increase in demand for digital payments, contactless payments, and e-commerce platforms, the Indian FinTech industry has reached a whopping US \$31 billion projected to grow by US \$84 billion by 2025. According to the 'MEDICI Indian FinTech report 2020', India has the second-largest number of FinTech startups. An Indian giant startup Paytm saw a 3.5X growth in transactions during the pandemic. Furthermore, startups like Razorpay, Cred, Instamojo, PolicyBazar saw a colossal increase.

Additionally, social media startup ShareChat, wealth management company Groww, messaging platform Gupshup, social commerce startup, Meesho, and an e-pharmacy startup, PharmEasy entered the unicorn club in April 2021. In August 2021, we saw four startups make it to the unicorn club, including the first-ever crypto unicorn.

The pandemic has stimulated the rapid usage of online technology. The Indian tech startups are thriving in the backdrop of this tough environment. As more businesses are expanding online, venture capital firms are more focused on tech startups.

Thus, we can conclude that tech startups in India are facing challenges and seizing the opportunities, creating a new era of innovation despite the pandemic.



The Post-Pandemic Working World



Covid changing the normal lifestyle has had a profound effect on many sectors forcing us to leap ahead to create the new normal on a temporary as well as on a long-term basis. Safety is the ultimate goal, drastic changes created in forming a new set of rules shifting the focus from tangible to intangible safety measures, we are now living in a world where minimizing physical contact is not just a luxury but a necessity. Personal protective equipment (PPE), smart communication, and wearable technology are statistically likely to contribute greatly to the post-pandemic working world. Authors Lesley McLeod and Shachar Harari state that "It's up to individual businesses to embrace new methods and technologies to help keep workers safe, pandemic or otherwise."



The Post Pandemic 'New Normal'

A nonscientific canvassing based on a nonrandom sample was conducted by Pew Research Centre which brought interesting insights to light.

Note: The results represent only the opinions of the individuals who responded to the queries and are not projectable to any other population.

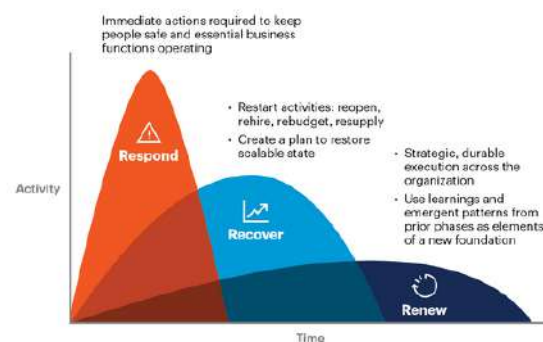
On being asked about what the new world will be after the pandemic passes, about 915 innovators, developers, business and policy leaders, researchers, and activists responded that the pandemic will inherently alter critical systems of society such as healthcare and medical treatments, economies, communities, and race relations. Some of the negative changes include worsening economic inequality, an increase in the social and market power of big technology firms, and the wildfire-like spread of misinformation. At the same time, accommodating new reforms aimed at racial justice and social equity into society, the better quality of life for many families, especially the working class, and the rapid technological advancements in key areas such as healthcare, education, and community living.

The responses were split, 47% agreed to the conclusion life becoming worse, 39% said life would mostly be better and 14% settled on there is not much change in the lives of people by the year 2025. All agreed on the fact that the world will be the most tech-driven it has ever been.

Adjusting Businesses to fit the pandemic

Before crisis became an opportunity for innovative businesses, firms experienced unprecedented shocks which triggered innovation. Due to workforce restrictions and limited access to inputs, firms revamped their products to meet the customer's needs. Investing in using digital technologies was practicable for the firms and companies to keep working smoothly. Statistically, by the end of the second wave, about 90 percent of firms were using digital technologies for their business.

A higher intensity in the use of digital technologies could already contribute to a faster recovery. In Bulgaria, Poland, and Romania digitization is making very limited inroads in areas such as production and supply chain management, which require complex organizational changes.



Accelerate Response-time on Health Services?

Reshaping circumstances into opportunities, companies must have a strong backbone to support their organization, employees, and systems. They should be able to effortlessly shift gears to redesign new and existing technology. Adapting to the pandemic situation, Deloitte and Salesforce cooperatively along with their team have worked on technologies and modified them into an accelerator called 'ConvergeHEALTH Connect For Crisis Response' to assist with remote administration, containment, and patient management. The accelerator is designed for organizations providing aid to COVID-19 patients to transform to offer online services in the field of digital commerce and help the clients to have a digital presence.



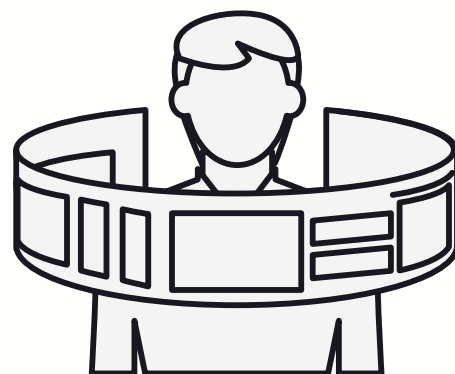
Rising Importance of Digital Tech

Pandemic globally has caused reconstruction in many sectors, the worst being the medical zone. Evaluation is necessary to strengthen pandemic management and future preparedness for COVID-19 and other infectious diseases. Early disease detection has helped in managing the cases and preventing them tactically. Data dashboards

extensively in the pandemic, collating real-time public-health data, including confirmed cases, deaths, and testing figures, to keep the public informed and support policymakers in refining interventions. The spread of the COVID-19 pandemic has exposed the need for government leadership to accelerate the evaluation and adoption of digital technologies. Digital technologies are working as a harness for the public health response to the pandemic and are contributing to reducing the human and economic impact of COVID-19.

What Technologies Should WE Focus On?

Apart from disconnecting us from the physical aspect of the world, Covid-19 has had an immense effect on business, to an extent where they have had to come to a complete halt if not for cutting-edge solutions from the tech industry. E-commerce and connectivity have been valuable for both the business and consumer worlds, considering the situation. However, individuals have come up with new technologies making it a bit tricky for students wanting to pursue their dreams in technical industries, questioning "which technologies that emerged during the pandemic will have a lasting impact on how we live and work?". Fielding question 14 tech innovations like Cloud Computing, Financial Process Automation, Cybersecurity Vendors, Virtual Reality among other technologies, are likely to stick around a long time after the Covid-19 pandemic is over.



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.

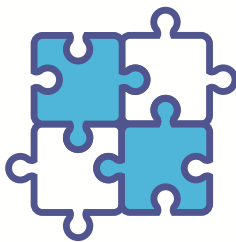
Best Outgoing Student of the Year award

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. 21,000/- cash.

Winner: Divya Munot



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 provide 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 center where online books, videos, and webinars are available. A digital library that has over 2 million pages of text, a 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.

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VISION

To be one of the top 100 Engineering Institutes of India in coming five years by offering exemplarily Ethical, Sustainable and Value Added Quality Education through a matching ecosystem for building successful careers.



MISSION

- Serving the needs of the society at large through establishment of a state-of-art Engineering Institute
- Imparting right Attitude, Skills, Knowledge for self-sustenance through Quality Education
- Creating globally competent and Sensible engineers, researchers and entrepreneurs with an ability to think and act independently in demanding situations

VISION & MISSION OF COMPUTER DEPARTMENT

“

VISION

To be a premier Computer Engineering Department by achieving excellence in Academics and Research for creating globally competent and ethical professionals.

“

MISSION

- To develop technologically competent and self-sustained professionals through contemporary curriculum.
- To nurture innovative thinking and collaborative research, making a positive impact on society.
- To provide state-of-the art computing environment and learning opportunities through Center of Excellence.
- To foster leadership skills and ethics with holistic development.



Computer Engineering
Student Association

#buildyourtribe

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.

CREDITS

Jessica Fernandes

Tejas Morkar, Rakshit Jha, Shreya Pillai, Nupur Shiturkar, Shrinivas Patil

CESA INSIDER

Fill out this form to contribute to the next edition



Near, Akurdi Railway Station Road, Nigadi Rd, Sector No. 26, Pradhikaran,
Nigdi, Pimpri-Chinchwad, Maharashtra 411044
Contact: 020 2765 3168