

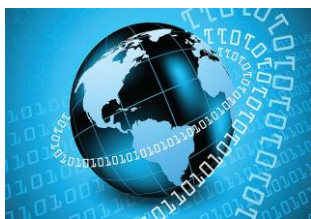


14th Edition

30/03/22

P.E.S. MODERN COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRONICS
AND TELECOMMUNICATIONS



E-BUZZ

Busy as a bee.....Gathering
Information!!!



Virtual Reality and Augmented Reality

Virtual Reality (VR) has been the “next big thing” for several years, but its time has finally come as a way to generate realistic images, sounds, and other sensations. It is fully immersive, which tricks your senses into thinking that you are in the middle of a spectacular imaginary world.



Using a head-mounted display (HMD) or headset, you can manipulate objects and move around using haptic controllers while tethered to a console or PC.

Augmented Reality (AR), which adds virtual stuff to your real-world environment, is contributing to the buzz, and both technologies will become a big part of our future.

MR brings together real world and digital elements. In mixed reality, you interact with and manipulate both physical and virtual items and environments, using next-generation sensing and imaging technologies. AR, VR and MR are also valid solutions in education, vein or surgical visualisation, relaxing patients, curing PTSD, speeding up recovery in physical therapy – or even supporting medical presentations.

Source: [<https://www.intel.com/content/www/us/en/tech-tips-and-tricks/virtual-reality-vs-augmented-reality.html>]



AWS (AMAZON WEB SERVICES)

AWS is the world’s most comprehensive and broadly adopted cloud platform provides scalable and cost-effective computing solutions and several on-demand operations like compute power, database storage, content delivery, etc which helps corporates to scale and grow.

It is a subsidiary of Amazon that provides APIs to individuals, companies, and governments, on a metered pay-as-you-go basis. Some of the services provided by AWS are Amazon Elastic Compute Cloud (EC2), Lambda, Amazon LightSail etc. Amazon markets AWS to subscribers as a way of obtaining large-scale computing capacity more quickly and cheaply than building an actual physical server farm. As of 2017, AWS owns 33% of all cloud (IaaS, PaaS) while the next two competitors Microsoft Azure and Google Cloud have 18%, and 9% respectively, according to Synergy Group.

Source: [https://www.simplilearn.com/tutorials/aws-tutorial/what-is-aws#what_is_aws]



Our Vision

- To impart holistic Education in Electronics and Telecommunication Engineering to create engineers equipped to meet the challenges of a dynamic, global environment.

Our Mission

- ✓ To impart quality Education in the field of Electronics, Communication and Signal Processing, by providing a comprehensive learning experience.
- ✓ To provide avenues to encourage students to continue education in diverse fields.
- ✓ To develop competent Engineers, well-versed in multi-disciplinary fields.
- ✓ To inculcate ethical and professional values in our students to endow society with responsible citizens



Obstacles are those
frightful things you can
see when you take
your eyes off your goal
- Henry Ford

From the Principal's desk:

I am very happy & feeling proud to see launch of the eighth edition of E-newsletter of E&TC dept. I'd like to share a heartfelt praise for the editorial team on their efforts and wish them success for all future endeavours.

-Dr. Mrs. K. R. Joshi

From the HOD's desk:

E-BUZZ is living up our expectations of an exclusive departmental newsletter, highlighting our departmental activities. We look forward to many such publications in future. May the Newsletter reach greater heights!

-Dr.Mrs. R. S. Kamathe

From Editor's desk:

It is with great pleasure that I bring forth fourteenth edition of E - BUZZ . This edition is culmination of the hard work involved. A special thanks to my editorial team.

- Mrs. S. V. Thuse

Work hard in silence
Let your success be
your noise



Authors



CLAUDE ELWOOD SHANNON

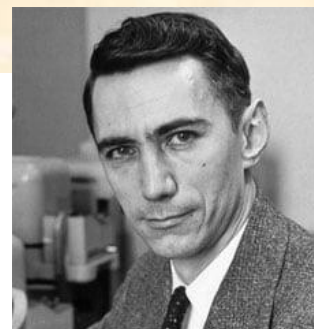
Claude Elwood Shannon (April 30, 1916 – February 24, 2001) was an American mathematician, electrical engineer, and cryptographer known as a **"father of information theory"**.

As a 21-year-old master's degree student at the Massachusetts Institute of Technology (MIT), he wrote his thesis demonstrating that electrical applications of Boolean algebra could construct any logical numerical relationship. Shannon contributed to the field of cryptanalysis for national defence of the United States during World War II, including his fundamental work on codebreaking and secure telecommunications.

He graduated in 1936 from University of Michigan, with two bachelor's degrees: one in electrical engineering and the other in mathematics.

After he graduated, Shannon went on to perform his graduate studies at the Massachusetts Institute of Technology (MIT) where he worked on Vannevar Bush's differential analyser, an early analog computer. While studying the complicated *ad hoc* circuits of this analyser, Shannon designed switching circuits based on Boole's concepts.

Source: [https://en.wikipedia.org/wiki/Claude_Shannon]



MICHAEL FARADAY

Michael Faraday, born on 22 September 1791 in Newington Butts (England) now a part of South London was an English scientist who contributed to the study of electromagnetism and electrochemistry. His main discoveries include the principles underlying electromagnetic induction, diamagnetism and electrolysis.

It was by his research on the magnetic field around a conductor carrying a direct current that Faraday established the basis for the concept of the electromagnetic field in physics.

Faraday succeeded in liquefying several gases, investigated the alloys of steel, and produced several new kinds of glass intended for optical purposes. A specimen of one of these heavy glasses subsequently became historically important; when the glass was placed in a magnetic field Faraday determined the rotation of the plane of polarisation of light. A statue of Faraday stands in Savoy Place, London, outside the Institution of Engineering and Technology. Faraday's discoveries foster understanding of the interaction between science and religion.

Source: [https://en.wikipedia.org/wiki/Michael_Faraday]

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Our Activities

✚ ARDUINO Workshop for FE

Date & Day: 11th May 2022, Wednesday

Venue: E&TC Seminar Hall

Session conducted by: TEESA along with IEEE Student Branch and Rotaract Club of ENTCT

Objective: Students will be able:

- Learn basics of Arduino
- Learn interfacing with sensors
- Build small kits with Arduino and sensors

Summary of the event: The students were explained the basics of the Arduino board along With basics of C/C++ programming that would be needed for the Arduino software coding. Furthermore, they were taught the basic working of sensors and hardware devices like LED, ultrasonic, temperature, LCD, serial communication and their programming along with interfacing them with Arduino board.

Outcome: The activity helped all students

- To get familiar with the Arduino Board
- Interface various sensors and actuators
- To make mini projects in future.



✚ WEBINAR ON BENEFITS & CAREER OPPORTUNITIES AFTER QUALIFYING G.A.T.E

Date & Day: 12 February 2022. Saturday

Venue: Webinar Session on Zoom

Session conducted by: Mr. Gaurav Lohar, Trainer, IMS Gate Academy.

Objectives:

- To guide students for career opportunities after GATE
- To provide students with tips and tricks for solving GATE paper

Summary of the event:

This event was conducted in association with the Department of Electronics and Telecommunication. The webinar started at 4:00pm with a brief introduction of the spokesperson for the webinar, Mr. Gaurav Lohar. Mr. Gaurav has completed his M. Tech from IIST Shibpur. He has got 3+ years of teaching experience.

Outcome:

- Students got an insight of the importance of the GATE Exam and its advantages with respect to their career opportunities after the Gate Exam.
- They also got to know opportunities after GATE.
- The session definitely developed an aspiration among students to prepare well for the exam and have a great career in future.

✚ GROUP DISCUSSION

Date & Day: 21st March 2022, Monday

Venue: E&TC Seminar Hall

Session conducted by: TEESA

Objective: To help students

- Develop public speaking skills.
- Help them put forth their views on various topics.
- Overcome their stage fear and build confidence in them.



Summary of the event:

The judges for this activity were Mrs. Rupali Chaudhary, who has been in association with TEESA for the past 10 years and Mr. Niranjana Parandhkar, who has a passion for theatre. The Group Discussion was conducted in three groups. Each group consisted of 10 to 12 student participants. Each group was given a topic and they had to put forth their for/against views for the same.

Outcome: Through this activity the students were able to

- Improve their public speaking skills.
- Improve on time management.
- Overcome stage fear and gain confidence.
- Develop team management skills.

✚ EXTENPORE COMPETITION

Date & Day: 28th March 2022, Monday

Venue: Seminar Hall, ENTC Department

Objective: To help students

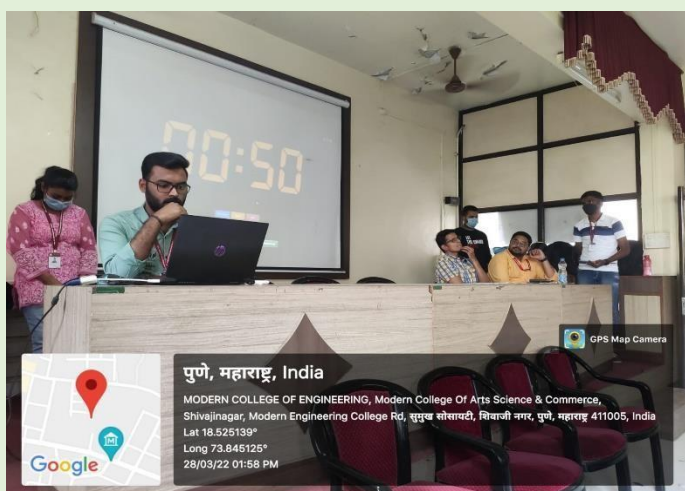
- Develop public speaking skills
- Help them put forth their views on various topics.
- Overcome their stage fear and build confidence in them.

Summary of the event:

The judges for this activity were Mr Yogesh Deshpande, from MBA Department and Mr. Niranjana Parandhkar, from ENTC Department.

The topics were given to them by the Random Selector website. Each student was given a maximum of 3 minutes to prepare and 2 minutes to express their thoughts and views on the given topic.

Extempore enables the student to think out of the box and off the feet. It is a great platform to develop communication skills and time management. Pushes one to conceive and generate ideas without any preparation. Makes them address and analyse the issue on the spot.



Outcome: Through this activity the students were able to

- Improve their public speaking skills.
- Improve on time management.
- Overcome stage fear and gain confidence.

Program Specific Outcomes:

At the time of graduation, the students of the ENTC department of PES's MCOE, will be able to

- ☑ Apply the Knowledge in E&TC engineering to understand, evaluate, design, or implement the electronics, communication, embedded or information systems or subsystems using conventional or modern tools/techniques
- ☑ Take up jobs in Government or private sectors, undertake research, create jobs or pursue further studies in any of the fields of E&TC, in India or Abroad.
- ☑ Incorporate ethical & social responsibility to complete projects in the E& TC and allied fields and use effective written and oral communication skills to present the work.

M-PULSE XTRONICA'22

Day & Date: Friday, 13th May 2022

Venue: Seminar Hall-E&TC Department

Objectives:

- To give a brief introduction about M-Pulse Xtronica.
- Brief introduction about the various competitions that are going to be held in Xtronica.
- To provide platform for students to explore innovative ideas
- To develop and enhance technical and management skills of the students.
- To encourage students for active participation in various technical events

Summary of the Activity/Event:

Department of E&TC of PES Modern College of Engineering, Pune-05 had organized M Pulse Xtronica event on 13th May 2022. The event was inaugurated by HOD of E&TC department Dr. Mrs. R.S Kamathe and the M Pulse Xtronica Co-ordinator Dr. Mrs. K.A. Adoni. Further the event was carried forward by M Pulse head Suhasi Buche by giving a brief introduction about M Pulse and the competitions that were about to be conducted.

Three events were arranged namely MUMBLE BUMBLE, STACK ATTACK, and TYPEFIGHTERS. MUMBLE BUMBLE game was played in pairs in which one participant has to wear the headphones and guess what the other participant is trying to say. STACK ATTACK was a fun speed game in which the participant has to stack a set of paper cups and collect them back together in stipulated time. TYPEFIGHTERS was an event where Participants would get short form of various electronic terms. The one who takes less time to type the full form, will be declared as the winner.

A hands-on Arduino workshop for FE and SE students was conducted by TESSA. "M-EXHIBIT" a project competition and exhibition was arranged for SE, TE and BE students. Winners of the competition were given attractive cash prizes.



Outcome:

1. Students took active participation in college activities.
2. Enhancement of technical knowledge in students.
3. Improvement of management skills in students.





BEST OUTGOING STUDENT



SAMIKSHA MULIK:

It is a huge honor for me to receive this award for being the best outgoing student. I am most thankful to all the teachers from E&TC department. All the teachers have always supported and encouraged me to give my best. Over these past 4 years I have learned a lot. When I first came to college all I wanted was to participate in everything there is. Be it college fests or groups or different teams. I just wanted to try everything even though I had no clue what some things were. Just participating, giving it a try was enough of a thing to do. That's the reason that I could be a part of Rotaract and IEEE club. Things like TEESA activity of debate or impromptu speeches or giving presentation in front of class and many more which department organised for us is why I am confident now. I have learned how a team works, how a team should be or should not be, what responsibility is and most importantly how to multi-task. Doing extracurricular activities never interfered with my academics. If anything, it taught how to multitask, manage everything while doing what you love. I am extremely thankful that I got to experience this & feel grateful that this college and my department gave me the opportunities to do so. To all the juniors, I would just say to participate in anything and everything that college offers, you'll learn a lot from those things.



Don't take rest after your first victory because if you fail in second, more lips are waiting to say that your first victory was *just luck...*



**UNLOCK YOUR
POTENTIAL!**



S – See your goal
U – Understand the obstacles
C – Create a positive mental picture
C – Clear your mind of self-doubt
E – Embrace the challenge
S – Stay on the right track
S – Show the world you can do it
F – Feed your Focus
U – Utilize all opportunities
L – Learn from all the Failures

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