



Vision of ECE Department

To produce skilled, socially –sensitized and globally competitive professional engineering graduates in the area of Electronics and Communication Engineering.

Mission of ECE Department

1. To provide quality and contemporary education through innovative teaching-learning process and effective resource utilization.
2. To develop responsive and socially sensitive engineer through research oriented practices.
3. To promote industrial collaboration for providing practical exposure leading to industry ready engineering graduates.
4. To open new vistas of learning for students through international collaborations.
5. To provide conducive environment through pre placement training and professional development activities for providing ample opportunities of placements, higher studies and entrepreneurship.

Program Educational Objectives (PEOs)

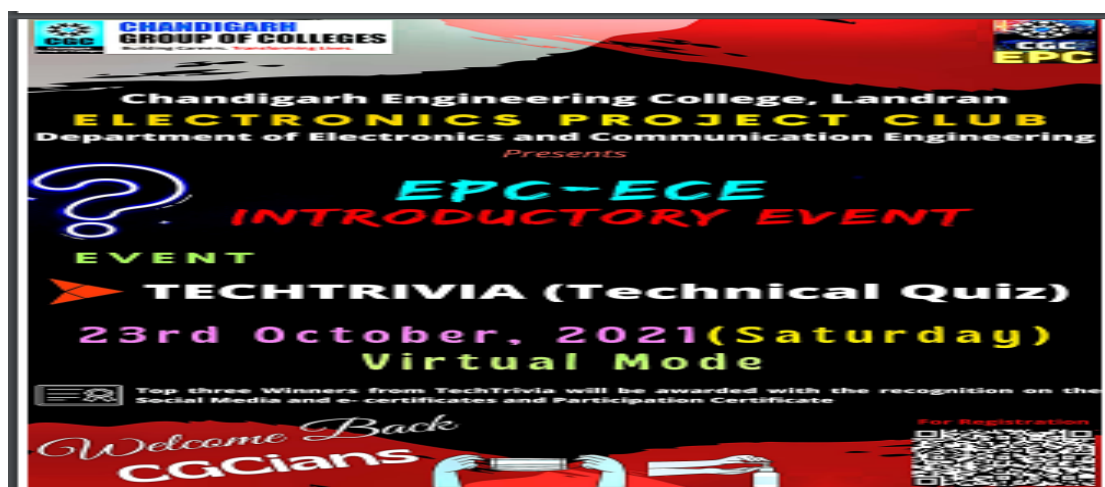
PEO1: Analyze and solve real life problems using advanced scientific and engineering expertise.

PEO2: Exhibit contemporary and multidisciplinary knowledge as per industrial needs with an ability to work effectively in a team.

PEO3: Acquire sustainable technological development and handle related societal issues.

PEO4: Excel in professional career and engage in lifelong learning to nurture holistic development by imbibing ethics and human values.

TECH TRIVIA (TECHNICAL QUIZ) ORGANISED ON 23RD OCTOBER 2021



Tech Trivia (technical quiz) was organised by Electronics Project Club (EPC) of Electronics and communication department on 23rd October 2021 through Virtual (Google Meet) / Kahoot. This



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event was an Excellent Opportunity for all the students to showcase their technical talent and enhance their technical skills. The quiz was having 20 questions related to Basic electronics, English and Basic programming (Technical). E-certificates were given to all the participants. Piyush Vashisht (1902466-ECE-5 th sem) held first position , 2 nd position was held by Ranjan Kumar (2002752-ECE-5 th sem) and 3 rd position was held by Mandeep Kumar (2002726-ECE-5 th sem). The event was successfully conducted under the guidance of Dr. Vinay Bhatia (H.O.D, ECE).



WORKSHOP ON PROCESS OF INNOVATION DEVELOPMENT AND TECHNOLOGY READLINESS LEVEL (TRL) ON 26TH NOVEMBER 2021



A workshop on “Process of Innovation Development and Technology Readliness Level (TRL)” was organised on 26th November 2021 by Institution Innovation Council, Institutional Industry Interface and Electronics Project Club (EPC) of Electronics and Communication Engineering Department. The resource person invited for the event was Dr. Satish Kumar , Sr. Pricipal



Scientist, ACSIR, CSIO, Chandigarh. It was an informative session by Dr. Satish on Innovative Topics and many more Technical aspects were discussed like Computational Intelligence ,Industrial Revolution ,Industry 4.0 ,Capabilities required to enable the 4th Industrial Revolution, IOT (Internet of Things) ,Enabling Technologies in IoT ,Data Mechanism ,Data Science ,Complexity and Diversity of Data ,Knowledge Flow ,Edge Computing and Smart Floor Monitoring System. The expert talk was attended by 80 students.



TECHNOVATE 2K21 organised on 6th December 2021

Electronics Project Club (EPC) and Techcomm Professional Society (TPS), Department of Electronics and Communication Engineering has organized TECHNOVATE 2K21 on 6th December 2021. The club conducted total five events namely ORATORS FOR LIFE (Group Discussion in the first round and PI for the selected ones in the second round), UNIQUEGENIX (Unique Idea Presentation), PSAT (Problem Solving Ability Test) (Containing Aptitude, Logical, Verbal and Technical questions), DECEIVE THE TWIST (Technical Puzzle Ability Test) and VOICE OF BRAINS (Stand up). Total 104 participants participated in these events. All the participants were rewarded with E-certificates and the winners were awarded with cash prizes and hard copy certificates.





Workshop under “UNNAT BHARAT ABHIYAN” on 7th December 2021

A workshop under Unnat Bharat Abhiyan cell was organized by the ECE and IT Department of Chandigarh Engineering College on 7th December 2021. The village adopted by the ECE department is “SAIDPUR” and “SAWARA” by the IT department. The workshop consisted of 4 stalls i.e. “Smart Agriculture, Basic of Computers, Electrical Components & Basic of Electronics”.

- Under “Smart Agriculture” our main focus was to make people aware about different government schemes and uses of Internet media platforms for their different kinds of needs.
- In “Basic of Computers” our targeted audiences were children. In it we taught them about the different types of applications of computers and how they can make their career out of it.
- “Electrical Components” stall was organized for the people of the village to make them aware about different electrical equipment and how to use them as per their requirement.
- “Basic of Electronics” stall was organized for the people of the village to make them aware about different types of electronics equipment and their applications.

Other than workshops we had also organized a skit to create awareness about online frauds going on these days. Cultural performances were done by some students. This event was attended by Students of class 9th and 10th as well as various families belonging to the village. Overall this workshop was very Informative and motivating for all the Students and Villagers. Ms. Nidhi Chahal, Asst. Prof. ECE department expressed a vote of thanks to all the students and villagers for attending the workshop.



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RECENT TRENDS- INTERNET OF BEHAVIORS (IOB)

If you've heard of the Internet of Things (IoT), you should know that the IoT extends to the Internet of behavior as well. The Internet of Things (IoT) is concerned with using data and insights to influence behavior. IoT devices are possible as massive databases for Internet of behavior (IoB) paradigms. Businesses will be able to follow customer behavior and use IoB to benefit their respective channels with the aid of IoB. For example, a health-tracking app may collect information about your physical activity routine, diet, sleep, and other habits. This information can be used to encourage more behavioral improvement, such as by creating personalized health plans.

Basically Internet of Behavior, also known as IoB, refers to the behavioral data analysis gathered from the Internet of Things and other sources and then attempts to make effective use of. This data is amassed through wearable technologies, individual online activities, household electrical devices, which can provide valuable information about the behavior and Interest of users. With the help of both IoT and IoB, it has become possible now to track, gather, combine and interpret massive data generated via various online activities and personal behavior, including social media behaviors and commercial transactions.



Applications of IoB in 2021

There are lots of applications of IoB you can explore in 2021 and apply in your own context. Most businesses are utilizing online advertising as an effective way to reach more customers in the present age.

- However, the Internet of Behavior is making them able to identify and target to target specific individuals or groups that can benefit from their services and products.
- For example, both Facebook and Google are using the behavioral data of their users to display advertisements to the people accordingly. This is helping businesses in getting connected with their potential audience as well as tracks their behaviors towards their ads via click-through rate.
- Similarly, YouTube is also utilizing behavioral analytics to improve the experience of its viewers. By tracking behavioral data, it is recommending users' videos and shows which they are more interested in.
- Even more, the latest technologies such as Siri, Google Home, and Alexa also study and interpret the data and behavior of the user to work more efficiently.

SCI/SCIE PUBLICATIONS

Many of our Faculty members have published research papers in SCI and SCIE Journals .

- Dr. Dinesh Arora , Dr. Vinay Bhatia and Ms. Jagdeep Kaur ,“Enhanced Spectrum Slicing--Wavelength Division Multiplexing Approach for Mitigating Atmospheric Attenuation in Optical Communication”, International Journal of Optical and Quantum Electronics-Springer.
- Dr. Simarpreet Kaur, “Security enhancement of 2-D DIM codes using 4×1 NOR logic based on FISO” International Journal of Optical and Quantum Electronics-Springer.
- Dr. Mohit Srivastav and Dr. Simarpreet Kaur, “Hybrid Local-Global Optimum Search using Particle Swarm Gravitation Search Algorithm (HLGOS-PSGSA) for Waveguide Selection”, IEEE Access.

PATENTS FROM ECE DEPARTMENT

- Pressure Sensor and Password based circuit breaker using Arduino
- Smart Water Serving Robot
- Smart Cap
- Contactless and hygienic examination conduction system.



FACULTY ACHIVEMENTS

- Dr. Dinesh Arora name has been published in a book “50 Eminent Researchers of 2021” volume 1 December 2021 event organized by International Institute of Organized Research (I2OR), India.
- Ms. Rachna Manchanda has been awarded with the participation certificate in the category “Working conditions; ensuring occupational health and safety issues” for presenting a prototype/ innovative solution of “AUTOMATIC GARBAGE PICKER” under the theme “India’s Economic Recovery Post Covid; Reverse Migration and Rehabilitation Plan to support “Atmanirbhar Bharat” organized by AICTE Regional Level Chhatra Vishwakarma Awards 2020.

STUDENT ACHIVEMENTS

- Sukhbir Singh Student of 5th sem has been awarded with the participation certificate in the category “Working conditions; ensuring occupational health and safety issues” for presenting a prototype/ innovative solution of “AUTOMATIC GARBAGE PICKER” under the theme “India’s Economic Recovery Post Covid; Reverse Migration and Rehabilitation Plan to support “Atmanirbhar Bharat” organized by AICTE Regional Level Chhatra Vishwakarma Awards 2020.
- Mohit Kumar gupta (5th sem), Kuldeep Rajput (5th sem) and Ravi kumar (3rd sem) participated in inter – college quiz competition organized by senior dupty director general ,department of telecommunication ,Punjab licensed service area on 27-10-2021 scored 3rd position in the event.

CHIEF EDITOR MESSAGE

This newsletter is intended to be published quarterly in a year. This inaugural issue is a brief account of the important events held from July to September 2021. It is expected that wide support for this mission will be provided through the reader's valuable suggestions and comments. This is only a small step towards a long journey. This issue of newsletter should inspire all of us for a new beginning enlighten with hope, confidence and faith in each other in the road ahead.

Chief Editor: Ms. Jagdeep Kaur
Student Editor :Mahima, Tarishi