



**CHANDIGARH
ENGINEERING COLLEGE
CGC, LANDRAN, MOHALI**
Building Careers. Transforming Lives.

The Communiqué

News Magazine | Volume-27

ISSUE JAN 2023 - MAR 2023

An Institution of Excellence

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Vision of the Chandigarh Engineering College- CGC, Landran, Mohali

To become a leading institute of the country for providing quality technical education in a research based environment for developing competent professionals and successful entrepreneurs.

Mission of the Chandigarh Engineering College- CGC, Landran, Mohali

1. To provide state of the art infrastructure and engage proficient faculty for enhancing the teaching learning process to deliver quality education.
2. To give a conducive environment for utilizing the research abilities to attain new learning for solving industrial problems and societal issues.
3. To collaborate with prominent industries for establishing advanced labs and using their expertise to give contemporary industry exposure to the students and faculty.
4. To cater opportunities for global exposure through association with foreign universities.
5. To extend choice based career options for students in campus placements, entrepreneurship and higher studies through career development program.





(Prof.) Dr. Rajdeep Singh
Director Principal
Chandigarh Engineering College-CGC, Landran, Mohali

Greetings to all!

Through the college magazine, I'd like to applaud the dedication of our faculty and students as they work tirelessly for the growth of our organization. Our organization is a place where students can learn new things, but also where they can discover their passions and develop their personalities. Our mission is to create a supportive environment where every student feels appreciated, valued, and encouraged to develop his or her full potential. When I think of what our students have accomplished, both in and out of the classroom, I am filled with pride. I have no doubt that you will continue to make a difference in the lives of others around you because of the passion, diligence, perseverance, and dedication you have for your work. This college magazine is a reflection of the talent, creativity, and diversity of our student body as well as our commitment to equip our students with latest advancements in every sector. It also emphasises the academic and extracurricular accomplishments of our students and faculty members.

I would like to thank the editorial team and all those involved in producing this magazine for their hard work and dedication. It is a testament of your creativity, vision, and commitment to excellence. I encourage all students to make the most of your time here at college. Get involved in extracurricular activities, take advantage of the resources available, and explore your interests and passions.

I wish you all the best for the future and hope that you enjoy reading this magazine.



**Dr. Harbinder Singh,
Professor & Associate Dean Research (RISE)
Chandigarh Group of Colleges**

Dear Readers,

As the Associate Dean Research, it is my pleasure to contribute to the latest edition of our college magazine, which showcases the innovative and cutting-edge research being conducted by our faculty and students. The faculty and staff in our organization are devoted to expanding human understanding and encouraging research that can help solve the difficult problems that plague modern society. We conduct research in many different disciplines along with conducting social activities also. In this edition of the magazine, the highlights of some of the exciting projects that are prepared by students during National Science Day are commendable. These projects demonstrate the creativity, expertise, and dedication of our students and faculty.

As the Dean of Research, I am proud of the achievements of our faculty and students and I am committed to support their research endeavours. I encourage all students to get involved in research activities, either through independent research projects or by collaborating with faculty members.

I hope that you find this edition of the magazine informative and inspiring, and I invite you to join us in our quest for knowledge and innovation.



From the Editor's Desk....

It gives me immense joy and pleasure to introduce the 27th edition of Communique magazine, a platform that showcases the creativity, talent, and hard work of our students and faculty members. As the editor of this magazine, I am delighted to present a diverse range of activities and achievements that reflect the vibrancy and richness of our college community.

Each new edition of our college magazine marks a new milestone in our development, provides free rein to our most audacious creative impulses, and gives tangible form to our most ambitious aspirations. Communique represents the perfect synthesis of expert analysis, creative expression, technical proficiency, and critical thinking.

Once again, through this magazine I would like to convey my thanks to all for their cooperation. Wishing you all a Happy Reading!

Inderjot Kaur

Editor

RANKING & AWARDS

1. Patent Filing Rank

CGC Landran bestowed with 4th position Pan India among the Top 10 Patent filing Institutes and 3rd among the Top 5 in the field of Information Technology along with the IITs, other premium Institutions and IT Corporates in the country.

2. MoE-AICTE

CEC-CGC, Landran, Mohali has received the highest 3.5-star rating by Institution Innovation Council of the Ministry of Education (MoE) and All India Council of Technical Education (AICTE) for demonstrating excellence in activities related to Innovations, Entrepreneurship, Startups, and Research & Development.

3. Dataquest T-School Survey Awards

Chandigarh Engineering College awarded with 9th Rank among the Top 100 Engineering Colleges in the Northern Region by Dataquest T-School Survey March 2022.

4. Chronicle 10th Rank All India Engineering Colleges Survey

- 5th Rank Overall among top Engineering Colleges (Government and Private) in India
- 2nd Rank Overall among top Engineering Colleges (Government and Private) in North India
- Grade A+++

5. DataQuest T-SCHOOL EMPLOYABILITY INDEX

- 10th Rank Overall among top 100 T Schools (Government and Private)
- 5th Rank in North India T Schools (Government and Private)
- 4th Rank in North India T Schools (Private)

6. THE WEEK-Hansa Research Survey

- 8th Rank in private colleges North Zone
- 36th Rank in private Engineering colleges across the country
- 60th Rank in Engineering Colleges all over India

7. NIRF Ranking 2022

Engineering All India Rank: 139

In Punjab

- Position including all institutes and universities (Government +Private): 6th Rank
- Position with only institutes (Government +Private) : 1st Rank
- Position with only private universities & institutes : 4th Rank
- Position with only private institutes. : 1st Rank

North India: (Punjab, Chandigarh, Delhi, Haryana, Himachal, Jammu and Kashmir, Rajasthan, Uttar Pradesh, Uttarakhand)

- Position with only institutes (Government + Private) : 1st Rank
- Position with only private institutes. : 1st Rank

8. Outlook I-Care Rankings 2022-India's Best Colleges

- 59th among top 100 private institutes in India
- 4th private institute among Punjab including University's Institutes
- 1st among private colleges in Punjab (excluding university's Institutes)

9. India Today Ranking 2022

- 2nd Rank in Private Colleges in Punjab
- 5th Rank in Private Colleges and Universities in Punjab
- 71th Rank across country (Overall India)

10. Times of India Engineering Survey 2022

- 7th in North Region
- 17th in top 125 private Engineering Institutes
- 22nd in all Engineering Institutes in India

11. Career 360⁰ Ranking 2022

- AAA+ Ranking in North India

12. NBA Accreditation

Chandigarh Engineering College-CGC, Landran, Mohali has recently received NBA Accreditation for two undergraduate courses:

- Computer Science and Engineering- **Valid upto 30th June 2025**
- Electronics and Communication Engineering-**Valid upto 30th June 2025**

13. Dataquest Tech School survey, 2022

- 2nd in Punjab in Top 100 T-Schools (Overall) – Government and Private
- 1st in Punjab in Top T-Schools (Private)
- 17th rank in Top T-Schools (Private)
- 9th rank in North India (Zone Wise)
- 29th rank in Top 100 T-Schools (Overall) – Government and Private

National Science Day 2023 celebrated with great zeal

The Department of Applied Sciences in association with the Department of Student Welfare organized National Science Day on 28th February, 2023. Dr. Satish Kumar, Chief Scientist, Centre of Excellence for Intelligent Sensors & Systems was the Chief Guest. There were more than 7 events, including Research for Pioneer, Sci-Stroke, Code--O--Fiesta, Tech-Hunt, Voice of Science, Best out of Waste, and T-Shirt painting. The Day also included some Cultural activities. National Science day was celebrated with an aim to remind the younger generation to take interest in science and encourage them to explore and pursue careers in the field of science and technology. The theme of the event this year was “Global Science for Global Wellbeing”. Approximately 1100+ students participated in this national level event from different colleges and schools of different states.



Expert Talk on “Power Transformers – Understanding and Exploring Real Time Innovations”

The Applied Sciences Department in association with IIC, organized an Expert Talk on the Topic “Power Transformers – Understanding and Exploring Real Time Innovations” on 16th March, 2023. Dr. Gaganpreet Kaur from Thapar Institute of Engineering and Technology (Deemed University) Patiala was the expert speaker. The aim of this talk was to provide knowledge about Transformer to the students. They understood the basic principles of Transformer, types of transformer and power transformer design steps. The Expert also discussed about power saving novel devices and portable transformers.



Exploring the Roadmap towards Financial Career

Department of Business Administration organized an engaging and innovative event on “Exploring the Roadmap towards Financial Career” in association with VSN Financial Services on 21st Feb, 2023. The expert for this session was Mr. Bhavesh Garg, Director, VSN Financial Services. Mr. Garg discussed the investment opportunities and made our students familiar with the roles and responsibilities and the career growth in the field of Finance.

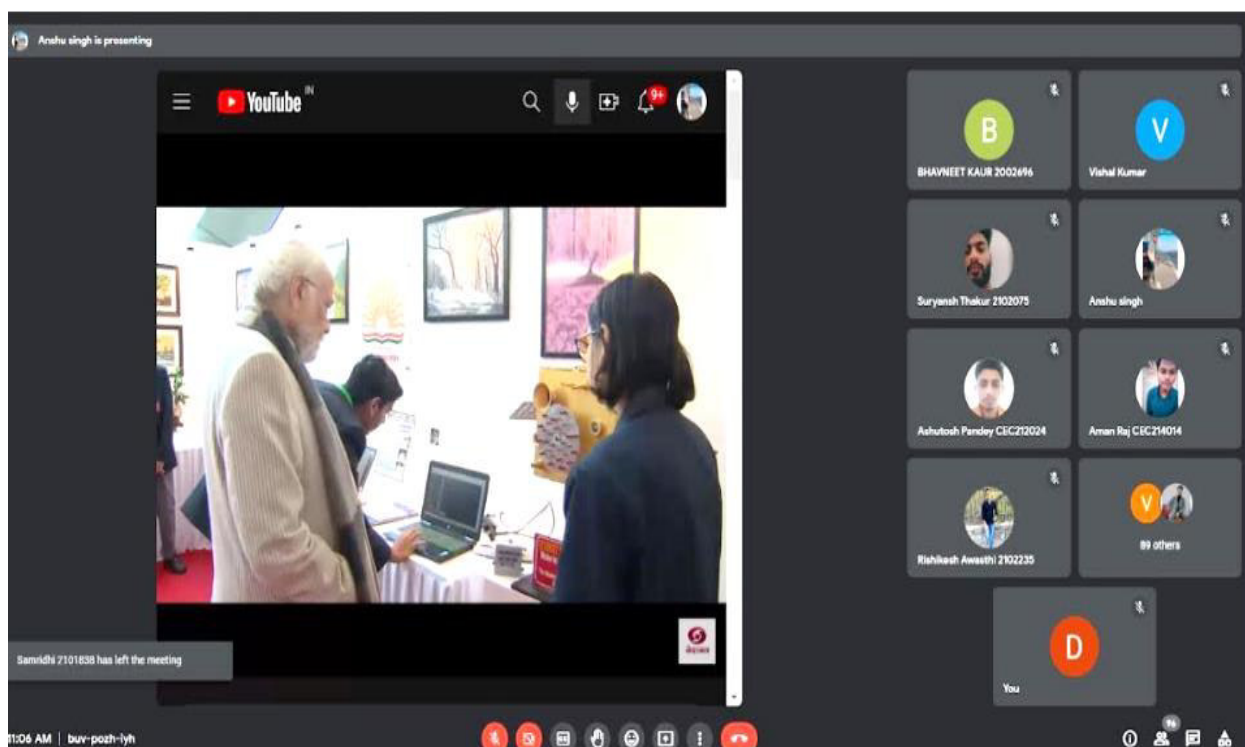


ECE Department students attended virtual session on “Pariksha Pe Charcha – 2023”

Pariksha Pe Charcha is a part of the larger movement - ‘Exam Warriors’ - led by Hon’ble Prime Minister Narendra Modi, to create a stress-free atmosphere for youngsters, the interaction every youngster waits for. It is an annual event held every year since 2018. During the event held on 27th January 2023, Hon’ble PM interacted with students, teachers and parents from across the country and shared valuable tips on how to take board and entrance exams in a relaxed and stress-free manner. The students of ECE department attended this virtual session with keen participation.

Hon’ble Prime Minister highlighted the following crucial points:

- "You are smarter than gadgets. Use it wisely" while talking on excessive use of social media.
- Students should balance hard work and smart work to excel in life.
- “Cheaters can pass exam, not life”.
- Promoting digital fasting for one day a week.
- "Be focused on hard work and the pressure of family will be non-existent” while talking on societal pressure.



Expert Talk on “Innovations in Steel Industries”

The Department of Mechanical Engineering organized an Expert Lecture on “Innovations in Steel Industries” on 10th February 2023. Dr. V.K. Gupta, Professor, Punjabi University Patiala, delivered this lecture. The students were briefed about the basic processes in steel industries and how the latest innovations are adopted by the steel industry. During this lecture, students learned about the process of interpreting the Iron Carbon Phase diagram, processing of steel in industries and alternate fuels used in the steel industry.



ECE Department organized event on “Electromagnetic fields & Antenna designing using CST Studio Software”

ECE Department organized a virtual session on “Electromagnetic fields & Antenna designing using CST Studio Software” on January 18, 2023. Mr. Yogesh Shriram Solunke, EMAG Application Engineer, VIAS 3D was the expert for this session. Both faculty and students participated in the learning process and grabbed the opportunity to be part of skilled world dedicated to high frequency range data communication. The expert demonstrated the design of antenna using CST Studio Software considering various aspects of electromagnetic interference and the probable application areas.



Industrial Visit to “CS Soft Solutions”

Department of Computer Applications organized an industrial visit to “CS soft solutions” on 8th February, 2023. This visit was organized to interact with the Software Industry to understand current market scenarios, latest most-demanding technologies criteria for selection etc. In this visit students were very eager to listen to industrial higher authorities. The Technical Head of “CS soft solutions” conducted very informative session for the students.



One-Day Workshop on Design Thinking

The Department of Mechanical Engineering organized one-day workshop on Design thinking on 16th February 2023. Prior to this, a session on design innovation for the safety of pedestrians was conducted. After this session, students were apprised to know about the process of design and analysis of Bumper system and Human Leg-form using the CAD software, CATIA and Ansys.



Motivational Session by a Young Entrepreneur

The Department of Mechanical Engineering organized a Motivational Session by a young Entrepreneur on 23rd February 2023. Er. Sukant Gupta, who is founder and CEO of Scrapbuk Services Pvt Ltd, Mohali, Punjab, delivered a motivational talk about his Entrepreneurial journey. He interacted with students and apprised them about the challenges and opportunities in the field of Entrepreneurship and Start-ups. The students also discussed their ideas and investment opportunities.



Expert session on “Block Chain Android & Web Development”

The Google Developer Student Club of the Department of Computer Science and Engineering organized an expert session on "Blockchain Android & Web Development" on February 2nd 2023. The session was presided over by Varsha Jaiswal, Ambassador of Women Tech Makers, Google Developers Club. This event aimed at empowering and encouraging young women to pursue careers in technology and to provide them with useful insights about the challenges faced by women in the tech industry. More than 100+ girl students attended the session with full enthusiasm.



CSE Department organized a Mock placement Drive ‘Mind-Drill 2.0’

The department of CSE organized a two-day mock placement drive, ‘Mind-Drill 2.0’ on February 20th and 21st, 2023 to provide students with a platform to analyze their preparation for placements by challenging their problem-solving and communication skills. The event was conducted in three rounds consisting of coding, group discussion, and interviews. All the shortlisted participants from round 1 participated in a GD contest that was moderated by faculty and club coordinators. 10 students were shortlisted for the final-interview round. Chirag Gupta got the first position, Aaryan Sachdeva got the second position, and Vivek Parashar got the third position. This event was successfully completed, and the winners were awarded with cash prizes.



CSE Department Signed MOU with Grazitti Interactive, Panchkula

The CSE Department signed an MOU with Grazitti Interactive on February 20th 2023, to provide an online training program- Skillstone, to undergraduate students for the development of IT skills like Salesforce, QA Automation, Full Stack, DevOps, and other technologies. Skillstone is an initiative by Grazitti Interactive LLP, one of the largest companies in the Tricity, with offices in the USA, Canada, Singapore, and Australia. As experts in the IT industry, Grazitti Interactive aims to bridge the gap between academics and industry.



Expert lecture on “Cloud Computing”

The CSE department organized an expert lecture on “Cloud Computing” for third-year students on January 25, 2023. It was a two-hour interactive session. The session was delivered by Mr. Nitin Saini, a recognized Domain Influencer, Gold Certified Mentor, TCS and Ms. Jyotsana Sinha, Pharmacy Quality Assurance Manager.



Seminar on “Professional Studies and Career Development”

The CSE department organized seminar on "Professional Studies and Career Development" on 6th Feb 2023 in association with Unacademy. Unacademy is India's largest e-learning platform. Their success stories include thousands of students who have cracked the toughest examinations like UPSC, CAT, OMET, SSC, GATE, ESE, etc. Their mission is to "democratize education and make quality education accessible to everyone". In order to achieve this, they associate themselves with empowering the students to gain their subject knowledge, to crack exams like GATE/NEET/ JEE, and several other entrance examinations, including campus placements. An interactive seminar was conducted by Mr. Prabhat Singh Kawar on Professional Studies and Career Development for the students of the CSE department to help them in their career paths.



Phoenix Club organized technical event “Mind Hack Coder”

Phoenix Club of CSE department organized a technical event "Mind Hack Coder" on February 27, 2023. It was organized on 'UNSTOP BY DARE 2 COMPLETE' platform, which encouraged students by providing them with a real time competitive environment and an opportunity to improve their coding skills. There were two rounds in this technical event, where approximately 120 students participated in the quiz round, out of which 60 students entered coding round 2. First three positions were awarded with cash prizes.



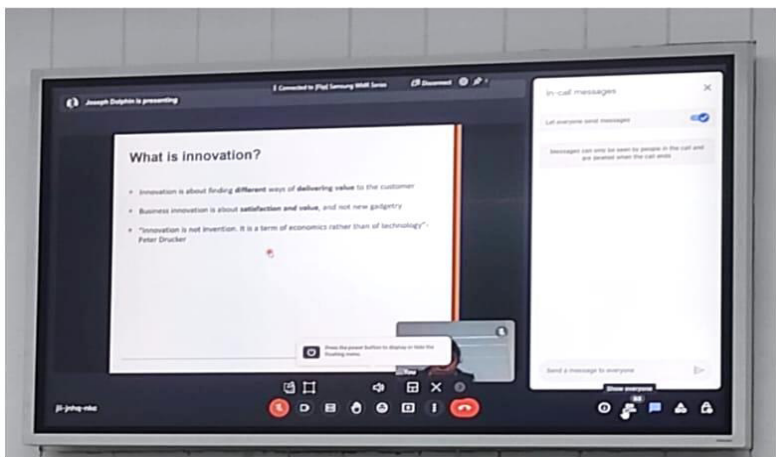
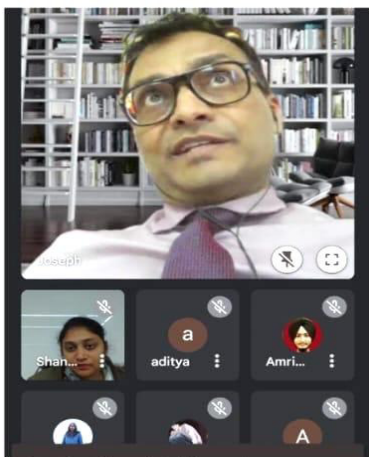
Industrial Visit to Godrej & Boyce Mfg. Co. Ltd.

The Department of Mechanical Engineering organized an Industrial Visit to Godrej & Boyce Mfg. Co. Ltd. for the students on 30th March 2023. During this visit, the students learned about the refrigerator manufacturing process. They visited the Design, Production, Assembly and Inspection section of the refrigerator-manufacturing unit at Godrej & Boyce Mfg. Co. Ltd.



Workshop on Systematic Innovation

IT department organized an interactive workshop on "Systematic Innovation (Using Principles of Fantasy)" on 3rd Feb, 2023. The Guest speaker, Mr. Joseph Dolphin, initiated the workshop by introducing systematic innovation and creation to the students. He thoroughly explained several principles of fantasy creation to the students. He taught the students about a variety of real-world problems, their causes, and potential solutions. He counseled the students that creative thinking is the key to achieving success in life. He provided a concise explanation of the three stages of imagination.



Expert Session on “Problem Solving and Ideation”

IT department organized an Expert Session on “Problem Solving and Ideation” on 7th February 2023. Mr. Shamsheer Singh Dhobia, Innovation Expert at ThinkNext, started the session by introducing himself and his companion. Mr. Shamsheer Singh Dhobia spoke about the need of being adaptable and curious as a student, as well as how to keep up with the ever-evolving technological landscape. He elucidated on how to generate new concepts and implement them in forthcoming technologies. He addressed three fundamental topics: percentage, technical skills, and communication skills. In addition, he discussed the skills required to construct a project and how to transform it into a product that is utilised by the public.



IT department organized Technical Event “Coding Ludo”

IT department organized a technical event "Coding Ludo" on 28th March 2023. Teams competed in this programming competition in which they had to solve pattern problems in order to roll dice and advance to subsequent rounds. The goal of Coding Ludo was to promote teamwork and collaboration among participants by providing a venue for them to demonstrate their programming and problem-solving prowess. The goal of the competition was to provide a stimulating environment in which competitors would be encouraged to expand their programming repertoire.



CSE Department organized Industrial Visit for students

The department of Computer Science and Engineering, Chandigarh Engineering College, CGC, Landran, Mohali, organized an industrial visit to CS Soft Solutions Pvt. Ltd., SAS Nagar on 24th March 2023. The visit started with an introductory session where the company's personnel briefed about their company and acknowledged students about upcoming trends in IT like Full Stack Development, Python Programming, Flutter, and SEO along with the various IT projects they are currently dealing with.



Industrial Visit to Wonder Automation Training Division Mohali

The Department of Applied Sciences organized an industrial visit to Wonder Automation Training Division Mohali on 3rd March, 2023 for 55 students of B.Tech 1st year. This visit was organized to give exposure to students about the design and manufacturing process of programmable logic controllers (PLCs) and various components that make up a PLC. These include the input/output modules, the central processing unit (CPU), the memory, and the power supply unit. The students were able to learn about the functions of each of these components.



Applied Science Department organized Industrial Visit for 1st Year students

The Department of Applied Sciences organized another industrial visit to Wonder Automation Training Division Mohali on 13th March, 2023 for 51 students of B.Tech 1st year. An introduction to the design and production of programmable logic controllers (PLCs) and the numerous parts that make up a PLC was the goal of this visit, which was planned for students. Input/output units, the CPU, memory, and the power supply unit are a few examples of these. The students were able to learn about the functions of each of these components.



Industrial Visit to Hella Lighting Limited

The Department of Mechanical Engineering organized an Industrial Visit to HELLA Lighting Limited for the students on 24th March 2023. During this visit, the students learned about the light bulb and LED light manufacturing process. They visited the Design section, Production section, Assembly Section and Inspection section at HELLA Lighting Limited. The students were apprised about the manufacturing process and special robotic tools used at HELLA Lighting Limited.



Industrial visit to PUNCOM

An industrial visit to Punjab Communication Limited, Mohali was organized by ECE Department for the students of 4th semester on 9th February 2023. The primary objective of the visit was to make students aware of the concept of telecommunication system, working of communication channel, devices and methods used for communication medium. Students learnt practical aspects related to Voice/Data Multiplexers, Power Plants, Optical/Transmission Equipment, PLCs and their major field of usage in telecommunications, networking and in broadband needs of major organizations.



Industrial visit to IISER Mohali

ECE Department organized an Industrial visit to IISER Mohali for B.Tech. students on 13th Feb 2023. This visit was organized to give about the start-ups & research initiatives that are being supported by Government. In addition to this, various laboratories that are being set up in IISER was shown to students. Students came to know about various government schemes that help entrepreneurs to setup their start ups and government schemes for increasing the number of women entrepreneurs in India. Students also got practical exposure of the Laser lab, Femto second lab, Nano scale detection, NMR research facility, Spectroscopy Lab and Incubation centre.



Industrial visit to NIELIT Ropar

ECE Department organized an Industrial visit to NIELIT Ropar for students of B.Tech. on 20th February 2023. The learnings from the visit include the evolution in the field of electronics in the past few years and to useful insights about AI & IoT. It was indeed a great opportunity to learn and upskill from the real work environment.



Industrial Visit to C-DAC, Mohali

ECE Department organized Industrial visit to CDAC, Mohali on 13th February 2023 for B.Tech students. The primary objective of the visit was to make students aware of the concept of telecommunication system, latest techniques in cyber security and health monitoring systems. Students came to know about design of VLSI Systems, ASIC IP development, microprocessor, microcontroller, DSP hardware and software technologies, which form the key building blocks in many industrial and strategic technology areas.



Faculty Achievements

- Dr. Dinesh Arora got Best Innovator Award 2023 at Innovator's Talk organized by Innovators Era.
- Ms. Nidhi Chahal contributed research paper on "Apple Leaf Disease Detection Using Collaborative ML/DL and Artificial Intelligence Methods: Scientometric Analysis", International Journal of Environmental Research and Public Health, Feb 2023.
- Dr. Ramanpreet Kaur contributed research paper on "Gaussian Approximation based WCDMA and OFDMA System Performance Investigation for Various Fading Channels", IEEE Xplore, March 2023.
- Ms Inderjot Kaur, Applied Sciences Department published a research paper titled "Scrutinising the Debasement of a Female Body through Marital Violence and Digital Media in Meena Kandasamy's *When I Hit You*" in Web of Science Indexed Journal in February, 2023.
- Ms Inderjot Kaur, Applied Sciences Department published a research paper titled "Patriarchal High-Handedness and Gender Bigotry- A Barbed Wire For a Sustainable Future" in Web of Science Indexed Journal in March, 2023.

Students Achievements

- ECE Students got 1st prize in National Science day Competition held on 28th Feb 2023 at CGC Landran.



- ECE Students participated enthusiastically in various sports events and won laurels in 17th Annual Athletic meet on 14th-15th February held at CGC Landran.

Patents Filed

- Patent filed on “Attendance Management System for Educational Organization” by Ms. Ashima Kalra with Application no. 202311013624.
- Patent filed on “Automated garbage waste management system” by Dr. Pooja Sahni, Ms. Rachna Manchanda, Dr. Sukhdeep Kaur, with Application no. 202311013626.

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